U.S. Department
of Transportation
**Federal Aviation
Administration**

SDR Summary

Service Difficulty Reporting

April 19, 1998 - April 25, 1998

GENERAL AVIATION, ZAC-327

You can improve Air Safety by reporting the problem when you see it!

SECTION

ISSUE: 98-17

U.S. Department of Transportation
Federal Aviation Administration

SDR SUMMARY

General Aviation, ZAC-327

This summary includes domestic (United States) Service Difficulty Reports (SDRs) entered into the data base for aircraft weighing 12,500 lbs. and below. It also includes reports on aeronautical products (engines, propellers, and components), and all helicopters. A separate section for International SDRs for aircraft weighing 12,500 lbs. and under has also been included. Under a data exchange agreement, International SDRs are submitted to the FAA by the Civil Aviation Authority of other countries (currently, Canada - CAN, and Australia - AUS). All reports are sorted by aircraft make, model group (basic model), and Joint Aircraft System/Component (JASC) code. Within each aircraft model group, the specific model shown may vary, but similar types of reports will be grouped together and listed in ascending order by their JASC code. Each field contains all information submitted to the FAA. Some fields are not included in order to make the summary easier to read. Additional information may be obtained by referring to the "operator control number." Send your request to the Aviation Data Systems Branch, AFS-620 at the address or phone below.

The Regulatory Support Division (AFS-600) has established a "HomePage" on the Internet through which the same information is available. There is a large quantity of other information available through the AFS-600 HomePage such as the most current SDR system codes (i.e., Joint Aircraft System\Component Codes). The SDR Question and Answer Section of the Summary will also be transferred to the AFS-600 HomePage to simplify the process of preparing the SDR Summaries in the PDF format each week. There are "hot buttons" to take you to other locations and sites where FAA Flight Standards Service Information is available. The AFS-600 "HomePage" address is:

http://www.mmac.jccbi.gov/afs/afs600

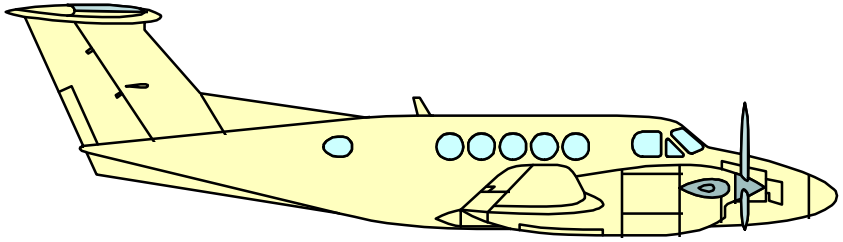
"The Service Difficulty Reports in this publication are derived from unverified information submitted by the aviation community without FAA verification for accuracy. The number of SDRs submitted is not an indication of the mechanical reliability or fitness of an airline or individual operator, and the information should not be used as such."

Comments are welcomed and may be directed to:

Federal Aviation Administration
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125-5029
Phone: (405) 954-4171, Fax: (405) 954-4748

Your continued participation is essential and is an integral part of ensuring aviation safety. Thank you for supporting the Service Difficulty Program! If you have any questions regarding this special notice you can contact John Jackson at (405) 954-6486, or Jim Gillespie at (405) 954-1141, or Blake McDonald at (405) 954-0307 in the Aviation Systems Branch (AFS-620). Their E-mail addresses are:

john_e_jackson@mmacmail.jccbi.gov **james_gillespie@mmacmail.jccbi.gov** **blake_mcdonald@mmacmail.jccbi.gov**



SIGNIFICANT OCCURRENCE REPORT

U.S. Department
of Transportation
Federal Aviation Administration

THE SIGNIFICANT OCCURRENCE REPORT

The Significant Occurrence Report is a compilation all of the star bordered reports that appear in the General Aviation Service Difficulty Report (SDR) Summary, ZAC-327. The Significant Occurrence Report is used to highlight industry problem areas to field inspectors and the aviation public.

Limited analysis is performed by the Aviation Data Systems Branch, AFS-620 during the preparation of the "Significant Occurrence Report", which is generated each week and is included in the front of the Air Carrier SDR Summary. Significant Reports are hand selected by AFS-620's inspectors based on the individual merit of each report. The criteria for selection includes, but is not limited to, items that indicate high failure rates; items related to accidents or incidents; or design or maintenance failures which may affect the safe operation of the aircraft.

In some cases, this limited analysis of SDR data leads to the preparation of information bulletins which are routed to the appropriate product certification office for further investigation of the problem. The end result may be the issuance of an airworthiness directive (AD) by the Aircraft Certification Service (AIR) if warranted.

The Significant Occurrence Report (section I) of the weekly SDR Summary is not intended to be a summary of all significant events and should not be used as such. We recommend that you review further the applicable sections of the SDR summary that may be of interest.

GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2750	8638V	BBAVIA				CABLE	BROKEN		2/25/98
AW4R	16275	8GCBC				19023	RT FLAP		98ZZZX1561
*****	DURING ANNUAL INSPECTION, LEFT AND RIGHT FLAP CABLES WERE FOUND WITH NUMEROUS BROKEN STRANDS WHERE THEY PASS OVER THE P/N 1-2395 PULLEYS AT THE LEFT AND RIGHT WING ROOTS. THE LEFT CABLE HAD BEEN REPLACED (DUE TO BREAKING AT THIS LOCATION) APPROXIMATELY 800 HOURS PREVIOUSLY IN 1993. CAUSE OF THIS DEFECT APPEARS TO BE DUE TO THE STIFFNESS OF THE CABLE COUPLED WITH RIGGING OVER A SMALL DIAMETER (APPROX .75 INCH GROOVE DIA) PULLEY.								
5511	6014F	BEECH				SPAR	CRACKED	6404	3/27/98
AKGR	M2107	C23			169620001603	16962000159	STAB HINGE ATT		98ZZZX1555
*****	CRACKS IN STABILATOR MAIN SPAR ADJACENT TO FUSELAGE HINGE ATTACHMENT FITTINGS. AIRCRAFT USED FOR FLIGHT TRAINING. CRACKS DUE TO FATIGUE. SUBMITTER RECOMMENDED DETAILED INSPECTION OF THIS AREA AT EACH INSPECTION INTERVAL.								
2140	3812C	BEECH				SOLENOID	LEAKING	460	3/30/98
BF8R	ME390	76			B4500	44008	HEATER FUEL		98ZZZX1595
*****	INTERMITTENT HEATER OPERATION FOUND FUEL SOLENOID LEAKING THROUGH SAME HOLE IN SIDE OF SOLENOID THAT THE WIRING COMES OUT OF. FUEL PUDDLED UP IN DRAIN PAN, THEN DRAINED OVERBOARD. FUEL OVERBOARD DRAIN IS LOCATED DIRECTLY IN FRONT OF EXHAUST.								
3211	301ER	BEECH				SUPPORT	CRACKED	2833	9/25/96
DYTR	LJ1286	C90A			901200602	9012006094	RT MLG INBD		96ZZZX5365
*****	DURING A ROUTINE PHASE INSPECTION, RT MLG RETRACT CLYINDER SUPPORT BRACKETS (ONE INBOARD, ONE OUTBOARD) WERE FOUND CRACKED 50 PERCENT OF THEIR LENGTH. DURING LANDING GEAR RETRACT TEST ON JACKS, CRACKS WERE OBSERVED OPENING WIDE. AIRCRAFT SENT TO DEALERSHIP MAINTENANCE SHOP FOR REPAIR.								
3211	301ER	BEECH				SUPPORT	CRACKED	2833	9/25/96
DYTR	LJ1286	C90A			901200602	9012006092	RT MLG OTBD		96ZZZX5364
*****	DURING A ROUTINE PHASE INSPECTION, RT MLG RETRACT CLYINDER SUPPORT BRACKETS (ONE INBOARD, ONE OUTBOARD) WERE FOUND CRACKED 50 PERCENT OF THEIR LENGTH. DURING LANDING GEAR RETRACT TEST ON JACKS, CRACKS WERE OBSERVED OPENING WIDE. AIRCRAFT SENT TO DEALERSHIP MAINTENANCE SHOP FOR REPAIR.								
3233		CESSNA				BOLT	SHEARED	4660	6/7/93
		172RG				AN17522A	RT MLG ACTUATOR		CA930622205
*****	(CAN) ONE OF 3 MLG RT ACTUATOR BOLTS FOUND SHEARED OFF BETWEEN BOLT SHANK AND THREAD AREA. SHEARED BOLT HELD IN PLACE BY GREASE. ONE OF THE OTHER 2 BOLTS WAS LOOSE. LT MLG ACTUATOR HAD ONE BOLT COMPLETELY OUT OF HOUSING. REST OF BOLTS OK. ALL BOLTS REPLACED WITH ONES REQUIRING LOCKWIRE.								
3710	54413	CESSNA				HOSE	DETERIORATED	7211	3/1/98
	17274970	172P				B904	VACUUM SYSTEM		98ZZZX1554
*****	VACUUM SYSTEM HOSE BELIEVED TO BE FACTORY INSTALLED HAD A VACUUM LEAK. TROUBLESHOOTING, HOSE APPEARED OK UNTIL WIGGLED BY HAND. CRACKS IN HOSE APPEARED AND INTERNAL HOSE MATERIAL DISINTEGRATED.								
3230	3038R	CESSNA				TORQUE TUBE	FAILED	12920	3/12/98
	320A0038	320A				081330046	NLG UPLOCK		98ZZZX1549
*****	LANDING GEAR WAS RETRACTED. 40 MINUTES INTO FLIGHT, PILOT HEARD LOUD BANG. AIRCRAFT LANDED WITH MAINS EXTENDED AND LOCKED. NOSE GEAR PARTIALLY RETRACTED. UPON INSPECTION, FOUND UPLOCK TORQUE TUBE END STUD BROKEN OFF (.25 INCH - 28 STUD. NEW VERSIONS HAVE .3125 INCH STUD). SUBMITTER RECOMMENDED INSTALLING BEEFIER UNIT.								
8520	5388J	CESSNA	CONT			BOLT	FAILED		3/1/98
GNBA	4040666	404	GTSIO520M			537750	NR 6 INT ROCKER	1113	98ZZZX1553
*****	SHORTLY AFTER TAKEOFF, PILOT FELT MINOR SHAKE IN LT ENGINE. A VISUAL INSPECTION (IN-FLIGHT) REVEALED SMALL AMOUNT OF OIL STREAMING BACK. PILOT RETURNED TO AIRPORT. MAINTENANCE PERSONNEL NOTED NR 6 INTAKE ROCKER BOX HAD A HOLE FROM THE INSIDE OUT. REPLACED BOLT, GROUND CHECK OK.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6220	900LF	DOUG				DROOP STOP	CRACKED	778	4/9/98
EGRA	90000022	MD900				900R2100001103	M/R HEAD		98ZZZX1613
*****	DURING 100-HOUR SPECIAL INSPECTION OF MAIN ROTOR HEAD, 4 EACH, DROOP STOP SUPPORT BRACKETS WERE FOUND CRACKED COMPLETELY THROUGH AT BOLT ATTACHMENT POINT SECURING BRACKET TO MAIN ROTOR HEAD. IF DROOP STOP SUPPORT WERE TO DEPART AIRCRAFT, MAIN ROTOR BLADE WOULD CONTACT TAIL BOOM. MANUFACTURER SHOULD NOTIFY OPERATOR OF POSSIBLE CRACKING AND INCREASE INSPECTION INTERVAL.								
5751	307CL	GULSTM				SPAR	CRACKED	5803	3/27/98
FTKR	11508	690B					RT AILERON		98ZZZX1541
*****	INSPECTION FOUND AILERON SPARS CRACKED. LOCATION: INBOARD HINGE BRACKET ATTACH POINT. LT AILERON HAD .75 INCH CRACK. RT AILERON HAD 2.25 INCH CRACK. CAUSE COULD BE RELATED TO TOTAL TIME.								
7120	40PM	PIPER	CONT			MOUNT	CRACKED	1664	3/26/98
BONR	4608005	PA46310P	TSIO520BE			8401002	FIREWALL RT		98ZZZX1551
*****	DURING ANNUAL INSPECTION, FOUND ENGINE MOUNT CRACKED ON RT SIDE. CRACK IS LOCATED WHERE NLG HYDRAULIC ACTUATOR ATTACHES TO MOUNT. DESIGN REQUIRES ACTUATOR TO BE POSITIONED SUCH THAT IT STRESSES THE MOUNT.								

(End of GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT)

Run Date: 30-Apr-98

FEDERAL AVIATION ADMINISTRATION
SIGNIFICANT OCCURRENCE REPORT INDEX

Showing Specific Part Numbers and Aircraft Model by Year

FOR THE PERIOD OF: 4/19/98 To 4/25/98

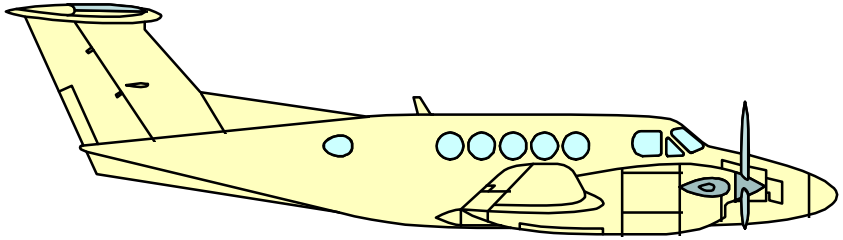
PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
081330046														
TORQUE TUBE	310K	**1**	-	-	-	-	1	-	-	-	-	-	-	-
	320A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 081330046		**2**	-	-	-	-	1	-	-	-	-	-	-	1
16962000159														
FRONT SPAR	C23	**1**	-	-	-	-	-	1	-	-	-	-	-	-
SPAR	C23	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 16962000159		**2**	-	-	-	-	-	1	-	-	-	-	-	1
19023														
CABLE	8GCBC	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 19023		**1**	-	-	-	-	-	-	-	-	-	-	-	1
44008														
SOLENOID	76	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	PA31350	**1**	-	-	-	-	-	-	-	-	-	-	1	-
TOTAL of # 44008		**2**	-	-	-	-	-	-	-	-	-	-	1	1
537750														
BOLT	404	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	404CESSNA	**1**	-	-	-	-	-	-	1	-	-	-	-	-
	421B	**1**	-	-	-	-	-	-	1	-	-	-	-	-
	421C	**3**	-	-	-	-	1	-	-	-	-	1	-	1
RETAIN BOLT	404CESSNA	**1**	-	-	-	-	-	-	-	1	-	-	-	-
SCREW	421B	**1**	-	-	-	1	-	-	-	-	-	-	-	-
TOTAL of # 537750		**8**	-	-	-	1	1	-	2	1	-	1	-	2

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
8401002														
MOUNT	PA46310P	**3**	-	-	-	1	1	-	-	-	-	-	-	1
TOTAL of # 8401002		**3**	-	-	-	1	1	-	-	-	-	-	-	1
900R2100001103														
DROOP STOP	MD900	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 900R2100001103		**1**	-	-	-	-	-	-	-	-	-	-	-	1
9012006092														
SUPPORT	C90A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 9012006092		**1**	-	-	-	-	-	-	-	-	-	-	-	1
9012006094														
SUPPORT	C90A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 9012006094		**1**	-	-	-	-	-	-	-	-	-	-	-	1
AN17522A														
BOLT	172RG	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # AN17522A		**1**	-	-	-	-	-	-	-	-	-	-	-	1
B904														
HOSE	152	**1**	-	-	-	-	-	-	-	-	-	1	-	-
	172P	**1**	-	-	-	-	-	-	-	-	-	-	-	1
	182R	**1**	-	-	-	-	-	-	-	-	1	-	-	-
	A152	**1**	-	-	-	-	-	-	-	-	-	1	-	-
	R182	**1**	-	-	-	-	-	-	-	-	1	-	-	-
LINE	152	**1**	-	-	-	-	-	-	-	1	-	-	-	-
	172P	**1**	-	-	-	-	-	-	-	1	-	-	-	-
TOTAL of # B904		**7**	-	-	-	-	-	-	-	2	2	2	-	1
TOTAL for ALL (25) PART NUMBERS:		**29**	-	-	-	2	3	1	2	3	2	3	1	12

END OF SIGNIFICANT OCCURRENCE REPORT INDEX

DOMESTIC

SERVICE DIFFICULTY REPORT



DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2432	8751V	BBAVIA				BATTERY	CRACKED		4/13/98
	20075	8KCAB				RG35XC	CASE		98ZZZX1606
	BATTERY CASE CRACKED ON BOTH SIDES OF CELL BELOW POSITIVE POST. CRACKS STARTED FROM FACTORY SEAM DOWN ALMOST TO BOTTOM. CRACKS APPEAR EQUAL ON BOTH SIDES. LESS THAN 20 HOURS SINCE NEW. POSSIBLE INTERNAL SHORT CAUSED EXPLOSION.								
2750	8638V	BBAVIA				CABLE	BROKEN		2/25/98
AW4R	16275	8GCBC				19023	LT FLAP		98ZZZX1560
	DURING ANNUAL INSPECTION, LEFT AND RIGHT FLAP CABLES WERE FOUND WITH NUMEROUS BROKEN STRANDS WHERE THEY PASS OVER THE P/N 1-2395 PULLEYS AT THE LEFT AND RIGHT WING ROOTS. THE LEFT CABLE HAD BEEN REPLACED (DUE TO BREAKING AT THIS LOCATION) APPROXIMATELY 800 HOURS PREVIOUSLY IN 1993. CAUSE OF THIS DEFECT APPEARS TO BE DUE TO THE STIFFNESS OF THE CABLE COUPLED WITH RIGGING OVER A SMALL DIAMETER (APPROX .75 INCH GROOVE DIA) PULLEY.								
2750	8638V	BBAVIA				CABLE	BROKEN		2/25/98
AW4R	16275	8GCBC				19023	RT FLAP		98ZZZX1561
*****	DURING ANNUAL INSPECTION, LEFT AND RIGHT FLAP CABLES WERE FOUND WITH NUMEROUS BROKEN STRANDS WHERE THEY PASS OVER THE P/N 1-2395 PULLEYS AT THE LEFT AND RIGHT WING ROOTS. THE LEFT CABLE HAD BEEN REPLACED (DUE TO BREAKING AT THIS LOCATION) APPROXIMATELY 800 HOURS PREVIOUSLY IN 1993. CAUSE OF THIS DEFECT APPEARS TO BE DUE TO THE STIFFNESS OF THE CABLE COUPLED WITH RIGGING OVER A SMALL DIAMETER (APPROX .75 INCH GROOVE DIA) PULLEY.								
5210	113GW	BEECH				PIN	BROKEN	5802	10/4/96
	BB541	200BEECH			1014300301	1313232C15	CABIN DOOR HOOK		96ZZZX5366
	MAINTENANCE FOUND FORWARD CABIN DOOR HOOK-PIN MOVING. DISASSEMBLED, PIN WORN ABOUT HALF WAY INTO AND BROKEN IN HALF, FAILED. SUBMITTER SUGGESTS CAUSE MAY BE POOR LUBRICATION OR NOT DONE AT PROPER INTERVALS, AND NEEDS TO BE INSPECTED AT PROPER HOURS.								
5510	6349C	BEECH				SPAR	CRACKED	3875	3/27/98
AKGR	M2371	C23			16962001603	16962000159	STABILATOR HINGE		98ZZZX1600
	CRACK IN STABILATOR MAIN SPAR ADJACENT TO FUSELAGE HINGE ATTACH FITTINGS AIRCRAFT USED FOR FLIGHT TRAINING. CRACK DUE TO FATIGUE. SUBMITTER RECOMMENDED DETAILED INSPECTION OF THIS AREA AT EACH INSPECTION INTERVAL.								
5511	6014F	BEECH				SPAR	CRACKED	6404	3/27/98
AKGR	M2107	C23			169620001603	16962000159	STAB HINGE ATT		98ZZZX1555
*****	CRACKS IN STABILATOR MAIN SPAR ADJACENT TO FUSELAGE HINGE ATTACHMENT FITTINGS. AIRCRAFT USED FOR FLIGHT TRAINING. CRACKS DUE TO FATIGUE. SUBMITTER RECOMMENDED DETAILED INSPECTION OF THIS AREA AT EACH INSPECTION INTERVAL.								
5741	9546Q	BEECH				BOLT	CORRODED	1100	4/13/98
UE3R	LC231	65					LT WING PANEL		98ZZZX1581
	IN C/W AD 85-22-05, WING BOLT REJECTED DUE TO MINUTE GALLING CORROSION SPOT IN THE INNER RADIUS. BOLT REMOVED FROM THE LT LOWER FORWARD OUTER WING PANEL ATTACHMENT.								
2140	3812C	BEECH				SOLENOID	LEAKING	460	3/30/98
BF8R	ME390	76			B4500	44008	HEATER FUEL		98ZZZX1595
*****	INTERMITTENT HEATER OPERATION FOUND FUEL SOLENOID LEAKING THROUGH SAME HOLE IN SIDE OF SOLENOID THAT THE WIRING COMES OUT OF. FUEL PUDDLED UP IN DRAIN PAN, THEN DRAINED OVERBOARD. FUEL OVERBOARD DRAIN IS LOCATED DIRECTLY IN FRONT OF EXHAUST.								
3211	301ER	BEECH				SUPPORT	CRACKED	2833	9/25/96
DYTR	LJ1286	C90A			901200602	9012006092	RT MLG OTBD		96ZZZX5364
*****	DURING A ROUTINE PHASE INSPECTION, RT MLG RETRACT CLYINDER SUPPORT BRACKETS (ONE INBOARD, ONE OUTBOARD) WERE FOUND CRACKED 50 PERCENT OF THEIR LENGTH. DURING LANDING GEAR RETRACT TEST ON JACKS, CRACKS WERE OBSERVED OPENING WIDE. AIRCRAFT SENT TO DEALERSHIP MAINTENANCE SHOP FOR REPAIR.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3211	301ER	BEECH				SUPPORT	CRACKED	2833	9/25/96
DYTR	LJ1286	C90A			901200602	9012006094	RT MLG INBD		96ZZZX5365
*****	DURING A ROUTINE PHASE INSPECTION, RT MLG RETRACT CLYINDER SUPPORT BRACKETS (ONE INBOARD, ONE OUTBOARD) WERE FOUND CRACKED 50 PERCENT OF THEIR LENGTH. DURING LANDING GEAR RETRACT TEST ON JACKS, CRACKS WERE OBSERVED OPENING WIDE. AIRCRAFT SENT TO DEALERSHIP MAINTENANCE SHOP FOR REPAIR.								
2510	8311J	CESSNA				MOUNT SCREW	MISSING		3/27/98
MOGR	15066211	150G			0413034200	S1021Z68	GLOVE BOX		98ZZZX1602
	DURING ANNUAL INSPECTION, A SMALL HOLE WAS FOUND IN RIGHT SIDE OF FORWARD FUSELAGE BELOW WINDSHIELD. PER CESSNA SB SB 68-16, THIS BOLT IS FOR SCREW THAT SUPPORTS FORWARD END OF GLOVE BOX. THIS HOLE WAS PAINTED OVER SHOWING SCREEN HAD BEEN MISSING SINCE LAST REPAINT IN 1994. NOTE: AD 67-31-04 REQUIRES REMOVAL OF GLOVE BOX. GLOVE BOX IS INSTALLED WITH FORWARD END UNSUPPORTED. NO LOG ENTRY INDICATING AD HAD EVER BEEN C/W. NOTIFIED OWNER.								
2810	8311J	CESSNA				STRAP	FAILED	3384	3/27/98
MOGR	15066211	150G				04265126	LT WING TANK		98ZZZX1604
	DURING ANNUAL INSPECTION, FOUND LEFT FUEL TANK AFT MOUNTING STRAP BROKEN. NOTIFIED OWNER.								
5412	8311J	CESSNA				FIREWALL	BUCKLED	3384	3/27/98
MOGR	15066211	150G			04530012	04531142	ENG MT AREA		98ZZZX1603
	FOUND FIREWALL BUCKLED HEAVILY ALL THE WAY ACROSS APPROXIMATELY 8 INCHES FROM BOTTOM. ALSO, BUCKLED AT ALL ENGINE MOUNT LOCATIONS. NOTIFIED OWNER.								
5412	8311J	CESSNA				ANGLE	FAILED	3384	3/27/98
MOGR	15066211	150G			04530012	04531073	FIREWALL LT FWD		98ZZZX1605
	DURING ANNUAL INSPECTION, FOUND ANGLE WHICH MOUNTS FIREWALL TO FUSELAGE BUCKLED AND POORLY REPAIRED. DAMAGE EXTENDED FROM 7 O'CLOCK TO 10 O'CLOCK POSITIONS. THE REPAIR CONSISTED OF AN ANGLE DOUBLER WITH RIVETS PASSING THROUGH BEND RADIUS AND ZERO EDGE DISTANCE. NOTIFIED OWNER. NO DOCUMENTATION OR REPAIR FOUND.								
3710	54413	CESSNA				HOSE	DETERIORATED	7211	3/1/98
	17274970	172P				B904	VACUUM SYSTEM		98ZZZX1554
*****	VACUUM SYSTEM HOSE BELIEVED TO BE FACTORY INSTALLED HAD A VACUUM LEAK. TROUBLESHOOTING, HOSE APPEARED OK UNTIL WIGGLED BY HAND. CRACKS IN HOSE APPEARED AND INTERNAL HOSE MATERIAL DISINTEGRATED.								
5330	9557X	CESSNA				SKIN	CRACKED	2758	11/25/97
	18268553	182R				07133343	LT FORWARD		98ZZZX1557
	THE (FUEL CHECK) STEPS ARE MOUNTED WITH AN3 BOLTS ATTACHED TO THE ACFT'S SKIN, P/N 0713334-3, AND P/N 0713334-4, LEFT AND RIGHT FORWARD SKINS. THE UPPER BACK BOLT WAS THROUGH THE SKIN AND THE BULKHEAD AT STA 1700. THE USE OF THE STEP CAUSED THE BOLT TO BREAK THE FLANGE ON THE BULKHEAD AND CAUSED A CRACK IN THE OUTER SKIN THROUGH THE BOLT HOLE ABOUT 2 INCHES LONG. THE UPPER FORWARD BOLT IS ATTACHED TO THE SKIN ONLY WITH AN OVERSIZED WASHER AND HAS SEVERELY DEFORMED THE OUTER SKIN AT THIS LOCATION. SUBMITTER STATED THIS AREA NEEDS TO BE REINFORCED IF STEPS ARE TO BE USED.								
5330	9557X	CESSNA				SKIN	CRACKED	2758	11/25/97
	18268553	182R				07133343	RT FORWARD		98ZZZX1558
	THE (FUEL CHECK) STEPS ARE MOUNTED WITH AN3 BOLTS ATTACHED TO THE ACFT'S SKIN, P/N 0713334-3, AND P/N 0713334-4, LEFT AND RIGHT FORWARD SKINS. THE UPPER BACK BOLT WAS THROUGH THE SKIN AND THE BULKHEAD AT STA 1700. THE USE OF THE STEP CAUSED THE BOLT TO BREAK THE FLANGE ON THE BULKHEAD AND CAUSED A CRACK IN THE OUTER SKIN THROUGH THE BOLT HOLE ABOUT 2 INCHES LONG. THE UPPER FORWARD BOLT IS ATTACHED TO THE SKIN ONLY WITH AN OVERSIZED WASHER AND HAS SEVERELY DEFORMED THE OUTER SKIN AT THIS LOCATION. SUBMITTER STATED THIS AREA NEEDS TO BE REINFORCED IF STEPS ARE TO BE USED.								
7110	1198V	CESSNA		HARTZL		COWL	CHAFED		3/23/98
	U20602509	U206F		HCC3Y*			NOSE		98ZZZX1521
	DURING ANNUAL INSPECTION, FOUND THE NOSE COWL WITH HOLES RUBBED THROUGH FROM AFT SPINNER BULKHEAD. THIS IS A STC SA685AL INSTALLATION, AND THE THIRD AIRCRAFT KNOWN TO HAVE THIS PROBLEM. TOTAL TIME SINCE PROPELLER INSTALLED 50:1. COWL TO BULKHEAD CLEARANCE IS .1250 INCH, BUT NEEDS MORE CLEARANCE DUE TO COWL GROWTH FROM AIR PRESSURE.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7430	6265B	CESSNA			GERDES	SWITCH	DEFECTIVE	2957	4/2/98
	21062727	210M			A510	C2925010105	IGNITION		98ZZZX1599
	IGNITION SWITCH, MODEL A-510. KEY CAN BE REMOVED AND FALLS OUT IN ALL POSITIONS. RECOMMEND RE-PUBLISHING WARNING FOR MECHANICS TO CHECK FOR THIS CONDITION AT EVERY INSPECTION.								
3230	3038R	CESSNA				TORQUE TUBE	FAILED	12920	3/12/98
	320A0038	320A				081330046	NLG UPLOCK		98ZZZX1549
*****	LANDING GEAR WAS RETRACTED. 40 MINUTES INTO FLIGHT, PILOT HEARD LOUD BANG. AIRCRAFT LANDED WITH MAINS EXTENDED AND LOCKED. NOSE GEAR PARTIALLY RETRACTED. UPON INSPECTION, FOUND UPLOCK TORQUE TUBE END STUD BROKEN OFF (.25 INCH - 28 STUD. NEW VERSIONS HAVE .3125 INCH STUD). SUBMITTER RECOMMENDED INSTALLING BEEFIER UNIT.								
2430	72324	CESSNA				DIODE	FAILED	1500	3/28/98
	33701561	337G					DC POWER SYSTEM		98ZZZX1598
	POWER DIODE FAILED CAUSING DAMAGE TO: REGULATOR, ALTERNATOR, AUTOPILOT. RECOMMEND REPLACING BOTH DIODES WITH HEAVIER DUTY (HIGHER CAPACITY) DIODES.								
3260	2681Y	CESSNA				ARM	FAILED	3000	3/25/98
	340A1530	340A				JE6	MLG SWITCH		98ZZZX1592
	ARM P/N JE6 ACTIVATES GEAR DOWN MICROSWITCH. LEAF BROKE, UNSAFE GEAR CONDITION SIGNALED, AIRCRAFT LANDED WITHOUT INCIDENT AFTER COMPLETING 'UNSAFE GEAR' CHECK LIST.								
2750	911LD	CESSNA				BRACKET	CORRODED	5129	4/6/98
	414A0461	414A				51220465	LT FLAP PULLEY		98ZZZX1556
	OUTBOARD FLAP BELLCRANK BRACKET BOLT HOLE IS CORRODED AND ELONGATED. BRACKET IS NEAR EXHAUST SLIP STREAM AND POSSIBLE REASON FOR THIS FAILURE.								
2750	98QS	CESSNA				SWITCH	SHORTED		4/9/98
	S5500098	S550				602EN166	LT FLAP LIMIT		98ZZZX1539
	PILOT REPORTED FLAP CONTROL CIRCUIT BREAKER TRIPPED WHEN FLAPS SELECTED UP. C/B WOULD NOT RESET. MAINTENANCE FOUND FLAP LIMIT SWITCH ON LT FLAP ACTUATOR INTERNALLY SHORTED TO GROUND. INSTALLED NEW SWITCH, P/N 602EN16-6, AND ADJUSTED AND SAFETIED IAW CESSNA S550 MM. PERFORMED OPERATIONAL CHECK OF FLAP SYSTEM AFTER RESETTING C/B, NO DEFECTS. FLAP SYSTEM NOW OPERATING NORMALLY. REF: CESSNA CITATION S550 MM CH 27-51-OU FOR REMOVAL AND REPLACEMENT PROCEDURES OF SWITCH. SUSPECT HIGH TIME PART LED TO FAILURE.								
5210	26496	CESSNA				HINGE ASSY	CORRODED	4137	4/9/98
	5500607	550				551123516	CABIN DOOR		98ZZZX1543
	CABIN DOOR REMOVED TO CHANGE BEARING ASSYS IN DOOR HINGE AND CORROSION DAMAGE WAS DISCOVERED IN HINGE. THIS IS MADE OF MAGNESIUM AND THE CORROSION DAMAGE WOULD NOT BE REMOVED WITHOUT COMPROMISING THE HINGE INTEGRITY. REASON FOR CORROSION WAS LACK OF LUBRICATION IN THE BEARINGS. THE LUBRICATION WAS NOT CALLED OUT IN THE INSPECTION GUIDE ALTHOUGH LUBE FOR LANDING GEAR TORQUE LINKS IS. THIS CAUSED THE LUBE TO BE OVERLOOKED UNTIL IT WAS TOO LATE.								
2430	143Z	DHAV			GE	CIRCUIT BREAKER	FAILED		4/10/98
	437	DHC6300				12XRP12A1	BATTERY		98ZZZX1529
	INSTALLED 'OVERHAULED' REVERSE CURRENT CIRCUIT BREAKER ON AIRCRAFT. PLACED BATTERY SWITCH AND MASTER TO 'ON'. BATTERY WOULD NOT COME ON LINE. TROUBLESHOT SYSTEM AND FOUND AN 'OPEN' BETWEEN THE 'GENERATOR FIELD SWITCH TERMINALS'; THUS, NOT ALLOWING THE BATTERY RELAY TO BE ENERGIZED.								
3260	4708W	GULSTM				SWITCH	FAILED	1520	12/29/97
MCIR	13302	112TCA				ISE13	LT MLG DOWNLOCK		98ZZZX1552
	LEFT MLG DOWNLOCK SWITCH FAILED TO CLOSE GIVING NO GEAR DOWN INDICATION. FOUND SWITCH INOPERATIVE. REPLACED SWITCH. AIRCRAFT LANDED WITHOUT INCIDENT. RECOMMEND STURDIER SWITCH.								

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2435	94TX	GULSTM			LUCAS	BEARING	FAILED		3/31/98
	5600247	560			23085004		LT START/GEN	594	98ZZZX1538
	PILOTS REPORTED A VIBRATION IN THE LEFT ENGINE AFTER TAKEOFF. THEY RETURNED TO THE AIRPORT WITH NO FURTHER PROBLEM. INSPECTION REVEALED THE LT STARTER/GENERATOR ANTI-DRIVE END BEARING WAS BEGINNING TO FAIL. THE GENERATOR WAS STILL OPERATING; HOWEVER, PIECES OF THE BEARING CAGE WERE FOUND UPON REMOVAL INDICATING IMMINENT CATASTROPHIC FAILURE.								
5541	560GL	GULSTM				RIB	CRACKED	1658	10/2/96
PAZR	5600079	560				5533110148	RUD INTERSPAR		96ZZZX5358
	DURING PHASE INSPECTION, FOUND RUDDER TO HAVE UNUSUAL NOISE WHEN MOVED. NO EXTERNAL DEFECTS NOTED. INSPECTED WITH BORESCOPE AND FOUND RIB WITH APPROXIMATELY 2.3750 INCH CRACK ORIGINATING AT FORWARD LIGHTENING HOLE. NEW RIB INSTALLED AND RUDDER BALANCED.								
5751	307CL	GULSTM				SPAR	CRACKED	5803	3/27/98
FTKR	11508	690B					RT AILERON		98ZZZX1541
*****	INSPECTION FOUND AILERON SPARS CRACKED. LOCATION: INBOARD HINGE BRACKET ATTACH POINT. LT AILERON HAD .75 INCH CRACK. RT AILERON HAD 2.25 INCH CRACK. CAUSE COULD BE RELATED TO TOTAL TIME.								
5751	307CL	GULSTM				SPAR	CRACKED	5803	3/27/98
FTKR	11508	690B					LT AILERON		98ZZZX1540
	INSPECTION FOUND AILERON SPARS CRACKED. LOCATION: INBOARD HINGE BRACKET ATTACH POINT. LT AILERON HAD .75 INCH CRACK. RT AILERON HAD 2.25 INCH CRACK. CAUSE COULD BE RELATED TO TOTAL TIME.								
7120	47642	PIPER				BOLTS	LOOSE		4/8/98
	28R7703413	PA28R201T					ENGINE MOUNT		98ZZZX1596
	FOUND BOTH LOWER BOLTS THAT SECURE ENGINE MOUNT TO AIRFRAME WERE TIGHTENED ALL THE WAY TO BOLT SHOULDER, BUT LOOSE IN PART. STILL HAD 'TORQUE SEAL' PAINT ON NUT. REMOVED BOLTS, INSPECTED, REINSTALLED WITH ADDITIONAL WASHERS.								
8011	3091T	PIPER			PRESTOLITE	STARTER	FAILED		4/6/98
	28R7235312	PA28R200				MZ4222R	ENGINE		98ZZZX1594
	STARTER MOTOR ATTACHED WITH NON-'AN' HARDWARE TO REDUCTION GEAR ASSY. ALL NR 10 ATTACH HARDWARE SHEARED, MOTOR SEPARATED FROM GEAR ASSY. STARTER FAILED.								
7603	155CA	PIPER				CABLE	BROKE	7358	11/19/97
	31T7820024	PA31T					RT ENG THROTTLE		98ZZZX1546
	RIGHT THROTTLE CABLE BROKE DURING ENGINE POWER UP. PART TOTAL TIME: 7,358.0 HOURS.								
7120	40PM	PIPER	CONT			MOUNT	CRACKED	1664	3/26/98
BONR	4608005	PA46310P	TSIO520BE			8401002	FIREWALL RT		98ZZZX1551
*****	DURING ANNUAL INSPECTION, FOUND ENGINE MOUNT CRACKED ON RT SIDE. CRACK IS LOCATED WHERE NLG HYDRAULIC ACTUATOR ATTACHES TO MOUNT. DESIGN REQUIRES ACTUATOR TO BE POSITIONED SUCH THAT IT STRESSES THE MOUNT.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2840	108W	BELL				FUEL FILTER	MALFUNCTION		3/7/96
	52034	206L				222366621103	BYPSSS SWITCH		HAI00000067
	AIRFRAME FUEL FILTER IMPENDING BYPASS SWITCH MALFUNCTIONING. BYPASS LIGHT COMES ON AND OFF WITH NO CONTAMINATION FOUND IN FILTER. REPLACED WITH NEW FILTER.								
3213	108W	BELL				FITTING	WORN	1122	5/28/96
	52034	206L				206033108001	RT CROSSTUBE		HAI00000075
	FWD CROSS TUBE STRAP ASSY WORN INTO RIGHT FWD CROSS TUBE FITTING. REPLACED FITTING PER PRODUCT SUPPORT WEAR LIMITS.								
3421	5012V	BELL				INDICATOR	FAILED		4/7/98
HEEA	45200	206L1				2360041902	COCKPIT		HEEA0013868
	ATTITUDE INDICATOR BAD BEARINGS.								
3421	2777D	BELL				INDICATOR	FAILED		4/7/98
HEEA	45299	206L1				2360041902	COCKPIT		HEEA0013865
	ATTITUDE INDICATOR BAD BEARINGS.								
3455	515KA	BELL				ANTENNA	FAILED		4/7/98
HEEA	51048	206L3				6223586001	ADF		HEEA0013870
	ADF IS UNRELIABLE.								
5350	53W	BELL				FAIRING	MIS MFG		2/1/96
GJQR	3587	206B3				206020114131S	FUSELAGE		HAIGJQR0063
	THIS FAIRING WAS ORDERED FROM BELL - BUT IT DOESN'T FIT - IT IS ONE-HALF INCH SHORT.								
6220	86W	BELL				ARM	STICKING	350	12/20/95
GJQR	4142	206B3				206011139001	M/R		HAIGJQR0061
	ARM STARTED STICKING IN FLIGHT POSITION AFTER SHUTTING DOWN AIRCRAFT. AFTER REPEATED ATTEMPTS TO FREE UP ARM, REPLACED IT WITH CSF STOCK								
6230	404W	BELL				BEARING	CORRODED	980	11/17/95
GJQR	52055	206L				206010443001	M/R MAST		HAIGJQR0053
	FEELS ROUGH & HAS SURFACE CORROSION REPLACED WITH CSF STOCK.								
6230	404W	BELL				BEARING	WORN	980	11/17/95
GJQR	52055	206L				206010459001	SWASHPLATE		HAIGJQR0054
	BEARING WORN & ROTATION. REPLACED WITH CSF STOCK.								
6230	404W	BELL				BEARING	WORN	980	11/17/95
GJQR	52055	206L				206010441001	SWASHPLATE		HAIGJQR0055
	BEARING WORN REPLACED WITH CSF STOCK.								
6240	2759U	BELL				INDICATOR	FAILED		4/7/98
HEEA	45272	206L1				2360016901	ROTOR		HEEA0013866
	BEARINGS EXCESSIVELY NOISY.								

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6310	345RR	BELL				SEAL	WORN		3/7/96
	2107`	206B				289051098	ENG /XMSN		HAI00000068
	SEAL IS WORN EXCESSIVELY. CUSTOMER COMPLAINT IS THAT ALL OF THE "2890" SERIES SEALS WITH THE BLACK MATERIAL SEEM TO WEAR DEEPER GROOVES AT A FASTER RATE THAN THE CHICAGO RAWHIDE SEALS WITH THE RED MATERIAL. THIS IS FOR INFORMATION ONLY.								
6320	108W	BELL				INDICATOR	DEFECTIVE	1526	5/28/96
	52034	206L				206040810103	TRANSMISSION		HAI00000076
	DURING 1500 TRANSMISSION SUN GEAR INSPECTION COMPLETED TB206L-95-183 PER BULLETIN. REPLACED WITH NEW PART FROM BHT								
6320	108W	BELL				INDICATOR	FAILED	1344	2/1/96
GJQR	52034	206L				206075678107	XMSN TEMP		HAIGJQR0064
	INDICATOR IS ERRATIC - WILL NOT READ ABOVE 50 DEGREE - DROPS TO ZERO DURING FLIGHT, UNRELIABLE. REPLACED WITH NEW INDICATOR FROM BELL.								
6320	97PM	BELL				THERMOSWITCH	SHORTED	81	10/24/97
GJQR	52187	206L				214040805001	M/R GR BOX		HAIGJQR0148
	SHORTED - KEEPS LIGHT ON. REPLACED WITH NEW PART FROM CSF.								
6410	96NW	BELL				BLADE	DEBONDED	264	12/4/96
GJQR	4389	206B				206016201131	T/R		HAIGJQR0100
	BLADE REPLACED DUE TO DEBOND DETECTED DURING POST FLIGHT. BLADE MAKES CLICKING SOUND AND DELAMINATION PRESENT AT BLADE ROOT DOUBLER AREA. REPLACED WITH CSF STOCK.								
6410	108W	BELL				BEARING	DEFECTIVE	863	5/28/96
	52034	206L				206310105101	T/R BLADE		HAI00000080
	INSTALLED BEARING IN T/R BLADE TO C/W TB206L-94-172 REV.A PT. I. BLADE ALIGNMENT WOULD NOT MEET THE DIMENSIONAL REQUIREMENT DUE TO THE AXIAL PLAY IN THE NEW BEARING. REPLACED WITH NEW BEARING FROM CSF STOCK.								
6410	108W	BELL				SLEEVE	DEFECTIVE	863	5/28/96
	52034	206L				206010733003	T/R BLADE		HAI00000081
	INSTALLED BRG. IN T/R BLADE TO W/C TB206L-94-172 REV.A,PT.I. BLADE ALIGHNMENT WOULD NOT MEET THE DIMENSIONAL REQUIREMENT DUE TO THE AXIAL PAY IN THE NEW BEARING. REPLACED WITH NEW STOCK FROM CSF.								
6510	404W	BELL				DISC PAC	WORN	980	11/17/95
GJQR	52055	206L				406040340101	T/R DRIVE		HAIGJQR0056
	DISC PAC REPLACEMENT DUE TO EXCESSIVE GAP. REPLACED WITH CSF STOCK.								
7920	97PM	BELL				FILTER HOUSING	LEAKS	2	6/17/97
GJQR	52187	206L				206040525101	OIL SYS		HAIGJQR0134
	FILTER HOUSING OIL LEAKS								
7920	97PM	BELL				FILTER HOUSING	LEAKS	59	6/17/97
GJQR	52187	206L				206040525101	OIL SYS		HAIGJQR0133
	FILTER HOUSING OIL LEAKS								
7920	97PM	BELL				FILTER HOUSING	LEAKS	59	6/17/97
GJQR	52187	206L				206040129001	OIL SYS		HAIGJQR0135
	FILTER HOUSING OIL LEAKS								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2915	98W	BELL				VALVE	FAILED	138	2/24/97
GJQR	35100	212				212076006105	HYD SYS		HAIGJQR0106
	VALVE TRIPS THE REMOTE FILTER CLOGGED INDICATOR WHEN POWER IS APPLIED. INDICATORS ON FILTER ASSY. DO NOT TRIP. FILTERS ARE CLEAN. REPLACED WITH NEW UNIT FROM BELL HELICOPTER.								
3040	98W	BELL				MOTOR	MIS MARKED		1/21/98
GJQR	35100	212				204070907101	WIPER		HAIGJQR0166
	ORDERED 204-070-907-001, RH MOTOR, AND RECEIVED 204-070-907-101 WHICH IS A LH MOTOR. SUBMITTER THINKS THIS HAS BEEN MISMARKED.								
3040	98W	BELL				WIPER ASSY	FAILED	177	2/24/97
GJQR	35100	212				204070907011	WINDSHIELD		HAIGJQR0107
	WIPER ASSY. BROKEN AT OUTBOARD PIVOT PIN. REPLACED WITH NEW UNIT FROM BELL HELICOPTER.								
3150	8530F	BELL				CAUTION PANEL	FAILED		4/3/98
LS1R	30920	212				209075325045	INST PANEL	228	98ZZZX1530
	INTERMITTENTLY COMPLETELY CUT OFF AND WILL NOT LIGHT MASTER CAUTION. UNIT REMOVED AND SENT FOR OVERHAUL. SUBMITTER CONTROL NR 98-4-1.								
5610	98W	BELL				WINDSHIELD	DAMAGED	177	3/24/97
GJQR	35100	212				212030464001	COCKPIT		HAIGJQR0110
	WINDSHIELD WAS DEEPLY SCRATCHED BY WIPER ASSY. THAT BROKE DURING FLIGHT. REPLACED WITH NEW WINDSHIELD								
6210	98W	BELL				BLADE	DAMAGED		4/10/98
GJQR	35100	212				206015001107	M/R		HAIGJQR0180
	RECEIVED NEW BLADE FROM BHT - DAMAGED. REPLACED WITH NEW BLADE FROM BHT								
6210	98W	BELL				BLADE	PEELING	138	3/24/97
GJQR	35100	212				212015501115	M/R		HAIGJQR0111
	LARGE PATCHES OF PAINT PEELING FROM BLADES.								
6310	98W	BELL				COUPLING	PITTED	782	4/10/98
GJQR	35100	212				212040688003S	ENG/XMSN		HAIGJQR0187
	PITTING BEYOND LIMITS. REPLACED WITH NEW PART FROM BHT								
6310	98W	BELL				COUPLING	PITTED	782	4/10/98
GJQR	35100	212				212040687001	M/R		HAIGJQR0186
	PITTING BEYOND LIMITS. REPLACED WITH NEW PART FROM BHT								
6320	98W	BELL				CHIP DETECTOR	DEFECTIVE	472	12/31/97
GJQR	35100	212				B3703	XMSN		HAIGJQR0158
	NO GROUNDING POINTS THROUGH LOCKING PINS & CASE. REPLACED WITH NEW PART FROM BHT								
6320	98W	BELL				SEAL	LEAKING	376	10/24/97
GJQR	35100	212				412040111105	INPUT PINNION		HAIGJQR0147
	SEAL LEAKING AN UNACCEPTABLE AMOUNT OF OIL. REPLACED WITH NEW SEAL FROM BHT.								
6710	98W	BELL				UNIVERSAL	ROUGH	782	4/10/98
GJQR	35100	212				412076620101	COLLECTIVE		HAIGJQR0182
	BEARING FEELS GRAVELLY ON ONE END WITH BLACK SUBSTANCE COMING OUT OF IT. REPLACED WITH NEW PART FROM BHT.								

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6710	98W	BELL				UNIVERSAL	ROUGH	782	4/10/98
GJQR	35100	212				412076620101	COLLECTIVE		HAIGJQR0183
	BEARING FEELS GRAVELLY ON ON END WITH BLACK SUBSTANCE COMING OUT. REPLACED WITH NEW PART FROM BHT.								
7210	98W	BELL	PWA			RING	CORRODED	782	4/10/98
GJQR	35100	212	PT6T3			M274263215B	GR BOX		HAIGJQR0184
	RETAINING RING CORRODED REPLACED WITH NEW PARTS FROM BHT								
7714	8530F	BELL				INDICATOR	FAILED		4/3/98
LS1R	30920	212				212070108007	NR 2 ENG TACH	783	98ZZZX1533
	NR 2 ENGINE TACH NEEDLE STICKS AT 80 PERCENT. UNIT REMOVED AND SENT FOR OVERHAUL. SUBMITTER CONTROL NR 98-4-2.								
7931	8530F	BELL				INDICATOR	FAILED	496	4/3/98
LS1R	30920	212				209070262	OIL PRESS/TEMP		98ZZZX1532
	ENGINE OIL PRESSURE INDICATOR READS ABOVE RED LINE AND READS 40 PSI WITH POWER OFF. REMOVED AND SENT FOR OVERHAUL. SUBMITTER CONTROL NR 98-4-3.								
7931	98W	BELL				TRANSMITTER	FAILED	161	2/24/97
GJQR	35100	212				1300203	OIL PRESS		HAIGJQR0108
	NO PRESSURE INDICATION ON GAUGE WITH 80 PSI SYSTEM PRESSURE. REPLACED WITH NEW UNIT FROM BELL HELICOPTERS								
7931	98W	BELL				TRANSMITTER	FAILED	183	2/24/97
GJQR	35100	212				1300205	OIL PRESS		HAIGJQR0109
	PRESSURE GAUGE INDICATES 0 PSI WITH ENGINE RUNNING & 75PSI SYSTEM PRESSURE. REPLACED WITH NEW UNIT FROM BELL HELICOPTER.								
7931	98W	BELL				TRANSMITTER	FAILED	579	4/10/98
GJQR	35100	212				APTE138A100G	OIL SYS		HAIGJQR0181
	TRANSMITTER INOP.								
2435	59806	BELL				STARTER	FAILED	23	4/7/98
HEEA	28140	214ST				214060056103	START/GEN		HEEA0013862
	START KICKS OFF AND DISENGAGES.								
2842	59805	BELL				PROBE	FAILED		4/7/98
HEEA	28141	214ST				214066212107	FUEL SYS		HEEA0013871
	PROBE WILL NOT TEST.								
3120	8045T	BELL				CLOCK	FAILED		4/7/98
HEEA	28101	214ST				212075514001	COCKPIT		HEEA0013863
	CLOCK INOPERATIVE.								
3414		BELL				INDICATOR	DEFECTIVE		4/6/98
HEEA		214ST				214175299105	COCKPIT		HEEA0013849
	AIRSPEED INDICATOR NEEDS TO BE BENCH CHECKED AND CERTIFIED. (PER ASB 214ST-97-79) SERIAL NUMBERS REMOVED ARE 230241 AND 230259.								
3414	6957Y	BELL				INDICATOR	DEFECTIVE		4/6/98
HEEA	28139	214ST				214175299105	COCKPIT		HEEA0013850
	AIRSPEED INDICATOR NEEDS TO BE BENCH CHECKED AND CERTIFIED. (PER ASB 214ST-97-79) SERIAL NUMBERS REMOVED ARE 230245 AND 230242.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3414	59806	BELL				INDICATOR	DEFECTIVE		4/6/98
HEEA	28140	214ST				214175299105	COCKPIT		HEEA0013851
	AIRSPEED INDICATOR NEEDS TO BE BENCH CHECKED AND CERTIFIED. (PER ASB 214ST-97-79)								
6230	3897N	BELL				TRANSMISSION	MAKING METAL	7120	4/8/98
HEEA	28106	214ST				214040003105	M/R MAST		HEEA0013873
	M/R MAST ASSY HAS METAL IN OIL.								
6230	3897N	BELL				SWASHPLATE	LOOSE	385	4/6/98
HEEA	28106	214ST				214010500117	M/R		HEEA0013860
	SWASHPLATE LOOSE SLEEVE NUT.								
6220	141MA	BELL				CONE SET	DEFECTIVE	1235	4/8/98
HEEA	53016	407				407010111101	M/R		HEEA0013875
	CONE SET TEFLON LINER COMING OFF.								
6220	407MM	BELL				HUB	WORN	1234	4/6/98
HEEA	53060	407				407010100103	M/R		HEEA0013856
	4 EACH GRIPS P/N 406-010-108-109, S/N A3310, A3331, A3324, A3312 (ALL TOTAL TIME 1234:35) DUE RETIREMENT. 1 EACH LOWER CONE SEAT P/N 407-010-107-101, S/N A80 (TOTAL TIME 1234:35) DUE RETIREMENT. PARTS AND LABOR WILL BE INVOICED...WO#9800197-99.								
6230	417PH	BELL				GIMBAL RING	WORN	1168	4/8/98
HEEA	53038	407				406010427109	M/R		HEEA0013876
	EXCESSIVE PLAY ON AIRCRAFT AND WORN BUSHINGS.								
6230	417PH	BELL				HUB SET	WORN	1168	4/8/98
HEEA	53038	407				406010428109	M/R		HEEA0013877
	EXCESSIVE PLAY ON AIRCRAFT AND WORN BUSHINGS.								
6230	417PH	BELL				LEVER ASSEMBLY	WORN	1168	4/8/98
HEEA	53038	407				406010425107	M/R		HEEA0013878
	EXCESSIVE PLAY ON AIRCRAFT AND WORN BUSHINGS.								
6230	417PH	BELL				LEVER ASSEMBLY	WORN	1168	4/8/98
HEEA	53038	407				406010425107	M/R		HEEA0013879
	EXCESSIVE PLAY ON AIRCRAFT AND WORN BUSHINGS.								
6230	417PH	BELL				LINK ASSEMBLY	WORN	1168	4/8/98
HEEA	53038	407				406010426101	M/R		HEEA0013880
	EXCESSIVE PLAY ON AIRCRAFT AND WORN BUSHINGS.								
6230	417PH	BELL				LINK ASSEMBLY	WORN	1168	4/8/98
HEEA	53038	407				406010426101	M/R		HEEA0013881
	EXCESSIVE PLAY ON AIRCRAFT AND WORN BUSHINGS.								
6310	417PH	BELL				FREEWHEEL UNIT	LEAKING	1283	4/6/98
HEEA	53038	407				406040500125	SEALS		HEEA0013852
	SEALS LEAKING AND WORN SEAL SLEEVE. PARTS AND LABOR WILL BE INVOICED ON PM#2497. REPLACEMENT SEAL P/N 406-340-102-101 RECEIVED ON 3-11-98 AGAINST OUR PO#407-285, INVOICE# I100514582. REPLACEMENT SEAL P/N 214-040-841-101 AND SLEEVE P/N 214-040-814-103 WERE RECEIVED								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6310	1167G	BELL				FREEWHEEL UNIT	LEAKING	564	4/6/98
HEEA	53067	407				406040500123	SEAL		HEEA0013857
	FREEWHEEL UNIT FORWARD SEAL LEAKING.								
6420	467PH	BELL				BEARING	WORN	183	4/6/98
HEEA	53142	407			407012101105	406312100101	T/R		HEEA0013854
	BEARINGS WORN. SCRAPPED BEARINGS.								
6500	447PH	BELL				BEARING	ROUGH		4/6/98
HEEA	53114	407			406040320101	406040339111	T/R		HEEA0013853
	ROUGH BEARINGS. SERIAL NUMBERS REMOVED ARE K97-0737 AND A98-0536.								
6500	406PH	BELL				BEARING	ROUGH	288	4/6/98
HEEA	53198	407			407040303101	406040339105	T/R		HEEA0013855
	ROUGH BEARINGS. SERIAL NUMBERS REMOVED ARE C97-2195 AND C97-2206. PARTS AND LABOR WILL BE INVOICED...WO#9800152-99.								
6520	427PH	BELL				GEARBOX	LEAKING	1111	4/6/98
HEEA	53059	407				406040400115	T/R		HEEA0013861
	INPUT AND OUTPUT SEALS LEAKING.								
3421	3893L	BELL				INDICATOR	FAILED		4/7/98
HEEA	33006	412				2360041902	COCKPIT		HEEA0013867
	ATTITUDE INDICATOR BAD BEARINGS.								
3425	2298Z	BELL				INDICATOR	FAILED		4/7/98
HEEA	33077	412				1113025	HSI		HEEA0013872
	HSI INDICATOR DOES NOT INDICATE PROPERLY.								
2840	203LF	BOLKMS				TRANSMITTER	ERRATIC	208	3/16/98
R7MA	2015	BO105LSA3				DK042			98ZZZX1576
	FUEL PRESSURE TRANSMITTER IS ERRATIC. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								
6420	202LF	BOLKMS				BEARING	WORN	367	12/2/97
R7MA	2014	BO105LSA3				1053170023	T/R		98ZZZX1571
	BEARING WORN BEYOND SERVICEABLE LIMITS. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								
6420	203LF	BOLKMS				BEARING	WORN	219	1/8/98
R7MA	2015	BO105LSA3				1053170023	T/R		98ZZZX1573
	TAIL ROTOR BEARING WORN BEYOND SERVICEABLE LIMITS. REPLACED WITH 2 EACH NEW UNITS, CORRECTED PROBLEM.								
7120	202LF	BOLKMS				BUSHING	WORN	305	11/22/97
R7MA	2014	BO105LSA3				10560387	ENGINE MOUNT		98ZZZX1578
	ENGINE MOUNT BUSHING'S ELASTOMERICS WORN BEYOND SERVICEABLE LIMITS. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								
7120	202LF	BOLKMS				BUSHING	WORN	433	2/16/98
R7MA	2014	BO105LSA3				10560387	ENGINE MOUNT		98ZZZX1577
	ENGINE MOUNT BUSHING'S ELASTOMERICS WORN BEYOND SERVICEABLE LIMITS. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7931	202LF	BOLKMS				SWITCH	FAILED	36	11/30/97
R7MA	2014	BO105LSA3				6607A2114	OIL PRESS WARN		98ZZZX1572
	OIL PRESSURE WARNING SWITCH INOPERATIVE. LOW PRESSURE LIGHT 'ON' IN-FLIGHT AND AT GROUND IDLE. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								
7931	203LF	BOLKMS				SWITCH	FAILED	134	2/26/98
R7MA	2015	BO105LSA3				6607A2114	OIL PRESS WARN		98ZZZX1574
	OIL PRESSURE WARNING SWITCH HAS ERRATIC OPERATION. CAUSES LOW PRESSURE WARNING LIGHT AT 100 PERCENT NR FLAT PITCH. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								
7931	203LF	BOLKMS				SWITCH	FAILED	450	1/5/98
R7MA	2015	BO105LSA3				6607A2114	OIL PRESS WARN		98ZZZX1575
	OIL PRESSURE WARNING SWITCH UNIT IS INOPERATIVE. INTERMITTENTLY LIGHT GOES 'ON' THEN 'OFF' DURING FLIGHT. REPLACED WITH NEW UNIT, CORRECTED PROBLEM.								
2330	911RZ	BOLKMS				AUDIO CONTROL	FAILED		4/7/98
HEEA	7092	BK117A4				ACS1278	COCKPIT		HEEA0013864
	AUDIO CONTROL INTERNAL LIGHTING INOPERATIVE.								
2340	911RZ	BOLKMS				AUDIO CONTROL	NOISY		4/7/98
HEEA	7092	BK117A4				ACS775SL	COCKPIT		HEEA0013869
	ICS HAD LOUD STATIC WHEN ON.								
6220	900LF	DOUG				DROOP STOP	CRACKED	778	4/9/98
EGRA	90000022	MD900				900R2100001103	M/R HEAD		98ZZZX1613
*****	DURING 100-HOUR SPECIAL INSPECTION OF MAIN ROTOR HEAD, 4 EACH, DROOP STOP SUPPORT BRACKETS WERE FOUND CRACKED COMPLETELY THROUGH AT BOLT ATTACHMENT POINT SECURING BRACKET TO MAIN ROTOR HEAD. IF DROOP STOP SUPPORT WERE TO DEPART AIRCRAFT, MAIN ROTOR BLADE WOULD CONTACT TAIL BOOM. MANUFACTURER SHOULD NOTIFY OPERATOR OF POSSIBLE CRACKING AND INCREASE INSPECTION INTERVAL.								
2841	1097J	HUGHES				INDICATOR	FAILED		4/8/98
LS1R	900801D	369D				369D29630521	FUEL QUANTITY		98ZZZX1531
	FUEL GAUGE INTERMITTENT AND CHANGES WHEN GENERATOR TURNED ON. UNIT REMOVED AND SENT FOR REPAIR. SUBMITTER CONTROL NR 98-4-4.								
7200	129NH	SKRSKY	PWA			ENGINE	STALLS	10638	8/7/96
NYBA	58855	S58ET	PT6T6		3024700		COMPRESSOR	1722	96ZZZX4781
	DURING HIGH POWER DEMANDS, COMPRESSOR STALLS NOTED BY PILOT. DURING ACCELERATION CHECKS ON GROUND, MECHANIC NOTED COMPRESSOR STALLS. NYH BELIEVES THE COMPRESSOR STALLS ARE DUE TO DAMAGED 1ST STAGE COMPRESSOR BLADES (FOD). POWER SECTION REMOVED IAW S58T MM AND SHIPPED TO VENDOR FOR EVALUATION AND REPAIR.								
6220	350BA	SNIAS				BALL JOINT	WORN	268	3/17/98
FF6R	2788	AS350BA				117775P	M/R HEAD		98ZZZX1534
	BALL JOINT WOULD NOT PASS WEAR CRITERIA PER MWC. REPLACED 3 EACH.								
6410	31AS	SNIAS				BEARING SET	DELAMINATION	493	10/17/97
VY1R	2689	AS350B2				355A09103601	T/R		98ZZZX1579
	BEARING REMOVED DUE TO DELAMINATION IN EXCESS OF LIMITS. REPLACED WITH NEW PART.								
6420	40466	SNIAS				BEARING	SEPARATION	543	4/8/98
HEEA	3004	AS350B2			355A12004008	579063	T/R HEAD		HEEA0013874
	RUBBER SEPARATION.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6520	31AS	SNIAS				BEARING	DELAMIANTED	493	10/17/97
VY1R	2689	AS350B2				350A33215300	T/R		98ZZZX1580
	BEARING REMOVED DUE TO DELAMINATION IN EXCESS OF LIMITS. REPLACED WITH NEW PART.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7210	98W	BELL	PWA			RING	CORRODED	782	4/10/98
GJQR	35100	212	PT6T3			M274263215B	GR BOX		HAIGJQR0184
	RETAINING RING CORRODED REPLACED WITH NEW PARTS FROM BHT								
8530	714TG	CESSNA	LYC			CYLINDERS	CRACKED	1578	4/14/98
	15279415	152	O235L2C			SLC10311	ENGINE		98ZZZX1597
	WHILE INVESTIGATING AN OIL LEAK, STAINS WERE NOTED ON THE LOWER SIDE OF THE ENGINE CYLINDERS. THE 4 EACH CYLINDERS WERE REMOVED FOR FURTHER INVESTIGATION AND CRACKS WERE NOTED APPROXIMATELY 1.25 INCHES DOWN FROM THE BARREL TO END. THE CRACKS WERE ON THE UPPER SURFACE (PUSH ROD SIDE). THE CYLINDERS WERE RETURNED TO THE MANUFACTURER FOR FURTHER EVALUATION.								
7414	269CJ	CESSNA	LYC		SLICK	MAGNETO	FAILED	45	3/1/98
	17259512	172L	O320E2D			4771	ENG LT MAG		98ZZZX1593
	MAGNETO WAS INSTALLED AS A NEW UNIT WITH STC SE419CH ON THIS AIRCRAFT ON 4-28-97. THE STC IS THE UNISON ELECTRONIC IGNITION SYSTEM. DURING THE MAG CHECK WITH THE ENGINE RUNNING AND THE MAG SWITCH IN THE LEFT POSITION, THE ENGINE QUIT. OPERATION WAS NORMAL IN RIGHT MAG OR BOTH POSITIONS. AFTER CONTACTING UNISON, THEY SENT A NEW MAG AND SUGGESTED CHANGING THE UNIT OUT. AFTER THIS WAS DONE WITH A NEW MAG, THE OPERATIONAL CHECK OF THE SYSTEM WAS NORMAL. THE UNSERVICEABLE MAG WAS RETURNED TO UNISON.								
8520	2773V	CESSNA	LYC			CRANKCASE	CRACKED	3900	4/10/98
	177RG0694	177RG	IO360A1B6			11B200511DL	NR 2 CYLINDER	1300	98ZZZX1548
	DISCOVERED 5.50 INCH LONG CRACK ON CRANKCASE BELOW NR 2 CYLINDER FLANGE. CRACK WAS APPROXIMATELY 1 INCH BELOW BOTTOM FLANGE OF CYLINDER AND FOLLOWED ENTIRE BOTTOM CIRCUMFERENCE OF CYLINDER. CRACK WAS DISCOVERED AFTER PILOT REPORT OF A LARGE OIL LEAK FROM FORWARD LEFT SIDE OF COWLING AND STREAKING UNDER AIRCRAFT BELLY.								
8530	21477	CESSNA	CONT			ROCKER BOSS	FAILED	2766	3/23/98
	18261657	182P	O470R				NR 2 CYL EXHAUST	1315	98ZZZX1544
	ABOUT 4 MINUTES AFTER TAKEOFF, ENGINE RAN ROUGH. A NORMAL LANDING WAS MADE. REMOVED COWL, NR 2 VALVE COVER HAD A 1 INCH HOLE IN IT. REMOVED VALVE COVER AND FOUND BOTH ROCKER SHAFT FORGED BOSSES BROKEN FOR EXHAUST ROCKER SHAFT. VALVE WAS NOT STUCK. PUSH ROD WAS NOT BENT. OLD AGE?								
8520	5388J	CESSNA	CONT			BOLT	FAILED		3/1/98
GNBA	4040666	404	GTSIO520M			537750	NR 6 INT ROCKER	1113	98ZZZX1553
*****	SHORTLY AFTER TAKEOFF, PILOT FELT MINOR SHAKE IN LT ENGINE. A VISUAL INSPECTION (IN-FLIGHT) REVEALED SMALL AMOUNT OF OIL STREAMING BACK. PILOT RETURNED TO AIRPORT. MAINTENANCE PERSONNEL NOTED NR 6 INTAKE ROCKER BOX HAD A HOLE FROM THE INSIDE OUT. REPLACED BOLT, GROUND CHECK OK.								
7261	245CC	CESSNA	PWA			OIL PUMP	WEAK		9/30/96
FRKA	550212	550	JT15D4			3030391	LT ENG SCAV	3241	96ZZZX5353
	LEFT ENGINE SHOWED EVIDENCE OF HIGH OIL CONSUMPTION. TROUBLESHOOTING REVEALED WEAK SCAVENGE OIL PUMP. OIL PUMP WAS REMOVED AND REPLACED WITH OVERHAULED UNIT AND OPERATION RETURNED TO NORMAL.								
7210	76WA	GULSTM	GARRTT			TRANSFER TUBE	BROKEN		1/26/98
HAXR	11342	690A	TPE3315251K				NOSE CASE OIL		98ZZZX1612
	CHIP LIGHT CAME ON IN-FLIGHT (VIBRATION). ENGINE SHUT DOWN IN-FLIGHT. FOUND METAL IN OIL SAMPLE. REMOVED NOSE CASE, FOUND OIL TRANSFER TUBE BROKEN OFF, BROKEN RING GEAR, AND ALL PLANETARY GEARS DAMAGED. SENT ENGINE TO AIRSEARCH FOR REPAIR. 188.5 HOURS AFTER GEARBOX INSPECTION.								
8550	7255L	GULSTM	LYC			OIL PUMP	WRONG GEARS		3/1/98
	AA1A0455	AA1A	O235C2C				ENGINE OIL		98ZZZX1518
	ANNUAL INSPECTION RECORD CHECK FOUND AD 75-08-09 C/W NOV 1976. REPLACED GEARS 6-7-78. ENGINE OVERHAULED, NO DETAILS GIVEN. 6-30-79 - ENGINE REMOVED AND STORED. TT 697.4 HOURS. 6-30-84. ENGINE INSTALLED IN N 7255L. AD 81-18-04R2. SIGNED OFF ON AD LIST AS DUE AT 2,000 HRS OR OVERHAUL. IN C/W AD 96-09-10, ENGINE REMOVED AND GEARS INSPECTED AND FOUND TO BE SINTERED IRON. BOTH GEARS REPLACED WITH HARDENED STEEL.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7310	191ER	MOONEY	LYC			TUBE ASSY	BROKEN		4/1/98
	243252	M20J	IO360A3B6			LW120980140	NR 1 CYLINDER		98ZZZX1590
	THE PILOT REPORTED A ROUGH ENGINE AND MADE A PRECAUTIONARY LANDING. THE NR 1 CYLINDER FUEL INJECTOR LINE WAS BROKEN AT THE CYLINDER END. RAW FUEL WAS BEING SPRAYED ON THE ENGINE AS IT WAS RUNNING. THERE WAS NO FIRE. THIS IS A COMMON PROBLEM ON THIS INSTALLATION (NR 1 CYL). AD 93-02-05 IS C/W AT EACH 100-HOUR INSPECTION.								
8520	4108D	PIPER	LYC			STUD	FAILED	5145	3/20/98
	318352018	PA31350	LTIO540J2BD				NR 4 CYLINDER		98ZZZX1520
	108.9 HOURS SINCE OVERHAUL: PILOT REPORTED ROUGH RUNNING NR 4 CYLINDER ALL STUDS BROKEN, FUEL INJECTOR LINE AND EXHAUST PIPE BROKEN, AND CASE CRACKED. THIS ENGINE IS BEING REMOVED FOR REPAIR. .3750 INCH STUDS, P/N 38-13. .50 INCH STUDS, P/N 50-15 THROUGH STUD, P/N 76220.								
8520	4108D	PIPER	LYC			STUD	FAILED	3713	3/6/98
	318352018	PA31350	TIO540J2BD				NR 1 CYLINDER		98ZZZX1519
	95.3 HOURS SINCE OVERHAUL: PILOT REPORTED ROUGH RUNNING ENGINE. INSPECTION SHOWED NR 1 CYLINDER, 2 EACH, TOP CYLINDER STUDS AND, 2 EACH, AFT STUDS BROKEN. FUEL INJECTOR LINE BROKEN, INTAKE TUBE DAMAGED. .3750 INCH STUDS, P/N 38-13. .50 INCH STUDS, P/N 50-15.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3421	5012V	BELL				INDICATOR	FAILED		4/7/98
HEEA	45200	206L1				2360041902	COCKPIT		HEEA0013868
	ATTITUDE INDICATOR BAD BEARINGS.								
3421	2777D	BELL				INDICATOR	FAILED		4/7/98
HEEA	45299	206L1				2360041902	COCKPIT		HEEA0013865
	ATTITUDE INDICATOR BAD BEARINGS.								
3455	515KA	BELL				ANTENNA	FAILED		4/7/98
HEEA	51048	206L3				6223586001	ADF		HEEA0013870
	ADF IS UNRELIABLE.								
3421	3893L	BELL				INDICATOR	FAILED		4/7/98
HEEA	33006	412				2360041902	COCKPIT		HEEA0013867
	ATTITUDE INDICATOR BAD BEARINGS.								
3425	2298Z	BELL				INDICATOR	FAILED		4/7/98
HEEA	33077	412				1113025	HSI		HEEA0013872
	HSI INDICATOR DOES NOT INDICATE PROPERLY.								
2330	911RZ	BOLKMS				AUDIO CONTROL	FAILED		4/7/98
HEEA	7092	BK117A4				ACS1278	COCKPIT		HEEA0013864
	AUDIO CONTROL INTERNAL LIGHTING INOPERATIVE.								
2340	911RZ	BOLKMS				AUDIO CONTROL	NOISY		4/7/98
HEEA	7092	BK117A4				ACS775SL	COCKPIT		HEEA0013869
	ICS HAD LOUD STATIC WHEN ON.								
6113	38581	PIPER		SNSNCH		BULKHEAD	CRACKED		3/31/98
	287716270	PA28161		74DM		87325	PROP SPINNER		98ZZZX1550
	PROPELLER SPINNER FRONT BULKHEAD CRACKED, TWO PLACES.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

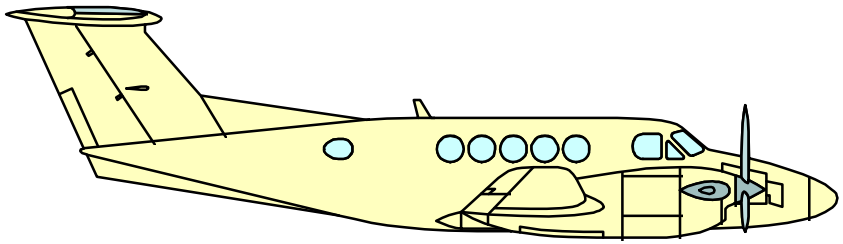
ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6114	2256L	AYRES		HARTZL		PILOT TUBE	DISPLACED	512	4/3/98
	T34232	S2RT34NORMAL		HCB3TN3		A1891A	PROP HUB		98ZZZX1610
	REMOVED PROPELLER TO REPLACE BROKEN LINK PIN UNIT. FOUND CORROSION ON BLADE. UPON FURTHER INSPECTION, FOUND CORROSION ON ALL THREE BLADES AND ANOTHER BROKEN SCREW IN ANOTHER LINK PIN UNIT. AFTER DISASSEMBLY, A PILOT TUBE WAS FOUND OUT OF POSITION. PROP HUB WAS SENT BACK TO FACTORY FOR REPAIR. SCREWS LOOK LIKE THEY WERE OVERTORQUED. THE PILOT TUBE DID NOT HAVE ENOUGH PITCH TO HOLD IT IN POSITION. SUBMITTER STATED MANUFACTURER NEEDS TO CHECK THEIR QUALITY CONTROL AND MANUFACTURE ASSY PROCEDURES.								
6114	23NC	CESSNA		MCAULY		HUB	CRACKED		4/9/98
LU4R	402B0419	402B		3AF32C87			NR 1 SOCKET		98ZZZX1547
	BLADE SOCKET NR 1 HAS AN EDDY CURRENT INDICATION IN EXCESS OF MANUFACTURER'S SPECS.								
6111		GULSTM		HARTZL		BLADE	CRACKED		4/9/98
RV3R		500B		HCA3VK2			V-GROOVE		98ZZZX1537
	PROPELLER BLADE INSPECTION FOUND CRACK IN V-GROOVE ON SHANK.								
6111		GULSTM		HARTZL		BLADE	CRACKED		4/8/98
RV3R		500B		HCA3VK2			V-GROOVE		98ZZZX1536
	PROPELLER BLADE INSPECTION FOUND CRACK IN V-GROOVE ON SHANK.								
6111		GULSTM		HARTZL		BLADE	CRACKED		3/5/98
RV3R		500B		HCA3VK2			V-GROOVE		98ZZZX1535
	PROPELLER BLADE INSPECTION FOUND CRACK IN V-GROOVE ON SHANK.								
6110	7327F	PIPER		MCAULY		BLADE CONTROL	FAILED	38	4/2/98
	2825236	PA28140		D3A34C402			PROP NR 2 BLADE		98ZZZX1601
	DURING ANNUAL INSPECTION, DISCOVERED NR 2 BLADE CAN BE ROTATED, BY HAND, THROUGH FULL RANGE OF BLADE ANGLES. MCCAULEY SUSPECTS A LINK OR THE PROP CONTROL MECHANISM MAY BE BROKEN. MCCAULEY TO INVESTIGATE ONCE THEY RECEIVE PROPELLER INTO SHOP.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

******* DENOTES SIGNIFICANT OCCURRENCE**

INTERNATIONAL

SERVICE DIFFICULTY REPORT



INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3220		AMTRMX				SPRING	BROKEN		1/23/96
		XP503					TAIL WHEEL		AU960248
	(AUS) TAIL WHEEL SPRING FAILED DURING LANDING - THIS DEFECT WAS RECEIVED FROM THE AUF AND IS FOR INFORMATION ONLY								
5711		AYRES			AYRES	SPAR	CRACKED	6044	5/20/93
		S2*				22343L	LT RT WING		CA930708302
	(CAN) CRACKS FOUND IN BOTH LT AND RT WING SPARS. AYRES SERVICE KIT S2R FF 002 WAS THEN INSTALLED. WING RT P/N 2020343R.								
7722		BEECH	PWA			BUS BAR	SHORTED	567	4/3/93
		B100	PT6A28			327628	THERMOCOUPLE T5		CA930702201
	(CAN) THERMOCOUPLE BRACKETS FIBEROUS INSULATION BREAKS DOWN VERY RAPIDLY CAUSING LOW TEMPERATURE INDICATIONS. OLD TYPE SOLID INSULATION DID NOT GIVE ANY PROBLEMS.								
2820		BEECH				PIPE	WORN		3/5/96
		B200C				10092004115	FUEL DISTRBUTION		AU960271
	(AUS) MAIN FUEL PIPE CHAFING ON STRUCTURE IN AREA BETWEEN MAIN LANDING GEAR BAY AND WING FUEL TANK - FUEL PIPE ON VH-AMM IN SIMILAR CONDITION								
5341		BEECH	PWA			RIVETS	SHEARED	6363	6/9/93
		B200	PT6A41			MS247DD6	FS 188.0		CA930622207
	(CAN) FUSELAGE STA 188.0 AT LT FUSELAGE LONGERON TO WING MAIN SPAR ATTACHMENT - 2 RIVETS FOUND SHEARED. LT WING STA 25. 0. AIRCRAFT TT: 7,674.								
2810		BEECH	CONT			BAFFLE	DISINTEGRATED		2/17/96
		58	IO520C				FUEL STORAGE SYS		AU960243
	(AUS) RH WING FUEL SYSTEM RESERVOIR FOAM BAFFLE DISINTEGRATED - FOUND DURING INSPECTION IAW SB 2109 PARA 1 - SUSPECT BAFFLE HAD NOTBEEN REPLACED IAW BEECH SB 2109 PART 2 - PERSONNEL/MAINTENANCE ERROR								
3260		BEECH				SWITCH	WORN	740	6/18/93
		C90A				44EN16	RT MLG		CA930628301
	(CAN) DURING TOUCH AND GO, RT GEAR SHOWED UNSAFE INDICATION. GEAR RETRACTED AND EXTENDED, ALL OKAY. AFTER LANDING AND DURING TAXI, RT GEAR SHOWED UNSAFE AGAIN. PART TC: 1,669.								
7722		BEECH	PWA			BUS BAR	SHORTED	1801	9/8/92
		99	PT6A27			327628	THERMOCOUPLE T5		CA930702202
	(CAN) THERMOCOUPLE BRACKETS FIBEROUS INSULATION BREAKS DOWN VERY RAPIDLY CAUSING LOW TERMPERATURE INDICATIONS. OLD TYPE SOLID INSULATION DID NOT GIVE ANY PROBLEM.								
8010		BEECH	PWA			CABLE END	LOOSE		6/16/93
		B99	PT6A28				LT ENGINE START		CA930708301
	(CAN) START CONTROL CABLE SWAGED END FOUND LOOSE. SWAGED END HAD PULLED OUT.								
7160		BNORM	LYC		LYC	HOSE	FAULTY		2/27/96
		BN2B20	IO540K1B5			352002034	ENG AIR INT		AU960242
	(AUS) LH AND RH ENGINE AIR INDUCTION HOSES FAULTY AS PER AD/BN2/57 AND SB BN2-95 - LH ENGINE HOSE WIRE SEPARATING - RH ENGINE HOSE WIRE SEPARATING AND HOSE PARTIALLY COLLAPSED - BOTH HOSES WERE SERVICEABLE AT LAST 50 HOUR SERVICING								
7430		CESSNA	CONT		BENDIX	TUMBLERS	WORN	3218	6/23/93
		170B	O300B		103572901	13777	IGNITION SWITCH		CA930706401
	(CAN) IN REFERENCE TO FEEDBACK 4/92, IGNITION SWITCH KEY COULD BE PULLED OUT FROM ALL RUNNING POSITION.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3233		CESSNA				BOLT	SHEARED	4660	6/7/93
		172RG				AN17522A	RT MLG ACTUATOR		CA930622205
*****	(CAN) ONE OF 3 MLG RT ACTUATOR BOLTS FOUND SHEARED OFF BETWEEN BOLT SHANK AND THREAD AREA. SHEARED BOLT HELD IN PLACE BY GREASE. ONE OF THE OTHER 2 BOLTS WAS LOOSE. LT MLG ACTUATOR HAD ONE BOLT COMPLETELY OUT OF HOUSING. REST OF BOLTS OK. ALL BOLTS REPLACED WITH ONES REQUIRING LOCKWIRE.								
3246		CESSNA			MCAULY	HUB	CORRODED		3/6/96
		172N			WHEEL	D30256	LG WHEEL/BRAKE S		AU960266
	(AUS) WHEEL HUB CORRODED - THREADS STRIPPED ALLOWING WHEEL FLANGE AND TYRE TO SEPARATE FROM HUB								
2731		CESSNA				PIN	BROKEN		6/11/93
		180				761259	TRIM WHEEL		CA930618201
	(CAN) DURING TRIM PROCEDURES IN CLIMB, TRIM WHEEL CAME LOOSE AND TRIMMING HAD NO EFFECT. INSPECTION FOUND TRIM WHEEL TO TRIM ACTUATOR ROD ROLL PIN BROKEN. SECOND OCCURRENCE THIS AIRCRAFT. WILL DO 50-HOUR INSPECTION ON THIS ITEM.								
7120		CESSNA	CONT			MOUNT	BROKEN	3250	6/24/93
		180H	O470R			751127	ENGINE		CA930624302
	(CAN) DURING TAKEOFF, PILOT HEARD A LOUD BANG. INSPECTION SHOWED ENGINE MOUNT UPPER LEFT SUPPORT STRUT HAD SEPARATED AT TOP OF GUSSET. NO CORROSION OR OLD CRACKING VISIBLE.								
7820		CESSNA				MUFFLER	CRACKED	1422	6/5/93
		A185E				CEM21	OUTLET PIPE		CA930617108
	(CAN) CRACK FOUND UNDER REINFORCING PLATE AT BASE OF OUTLET PIPE ALLOWING CARBON MONOXIDE TO LEAK INTO CABIN.								
2840		CESSNA			STRATOFLEX	HOSE	DETERIORATED	103	6/28/93
		188B				1563	FUEL PRESS		CA930628303
	(CAN) FUEL PRESSURE GAUGE HOSE FROM FUEL MANIFOLD TO FIREWALL FOUND LEAKING SEVERELY. PROBLEM BECAME EVIDENT WHEN LOW FUEL PRESSURE INDICATION AND ENGINE CUTOUT ON START-UP. FUEL DRIPPING FROM COWLING. HOSE HAS NUMEROUS LEAKS. HOSE INSTALLED NEW IN JUNE '91. NO KNOWLEDGE OF AGE OF HOSE AS TAG NOT ATTACHED.								
5510		CESSNA	CONT		CESSNA	BRACKET	BROKEN		3/1/96
		U206E	IO520F		STABILISER	12321391	HORZ STAB SYS		AU960257
	(AUS) HORIZONTAL STABILISER TRIM ACTUATOR MOUNT BRACKET BROKEN - AIRCRAFT IS USED FOR SKYDIVING WITH DOORS REMOVED AND DEFLECTORFITTED - SUSPECT TURBULANCE CAUSED BY DEFLECTORS CAUSES EXCESSIVETURBULANT AIRFLOW OVER EMPENNAGE - SEE MDR 96/0178 FOR FURTHER INFORMATION								
7921		CESSNA	CONT			COOLER	LEAKING		6/8/93
		U206	IO520F			8526732	ENG OIL		CA930622602
	(CAN) OIL COOLER LEAKING AT LOWER LEFT CORNER IN CORE.								
2750		CESSNA				BOLT	FAILED	715	6/21/93
		208B			26222812	AN4H73A	FLAP BELLCRANK		CA930629301
	(CAN) FLAP BREAKER POPPED AT 20 DEGREES FLAPS ON FINAL. CB TRIPPED ON RESET. STANDBY SYSTEM ALSO POPPED BREAKER. FLAPS FOUND WITH 4 INCHES FREE PLAY. RT INBD BELLCRACK FOUND LOOSE IN MOUNTING BRACKETS AND THRU BOLT HAD DROPPED DOWN BEING HELD IN PLACE BY LOCKWIRE. BOLT HAD BROKEN AT THREADED END AND PART OF THREAD WAS STILL SECURE IN THE INSERT IN UPPER MOUNTING BRACKET. FLAPS WERE OUT OF RIG, THEREFORE, LT FLAP BOTTOMED OUT AND MOTOR CONTINUED TO RUN CAUSING RT FORWARD FLAP BELLCRANK TO BE OVERLOADED. FLAP ASSIST CABLES ALSO OVERTENSIONED.								
3233		CESSNA	CONT			ACTUATOR	CRACKED	2529	6/2/93
		337	IO360G			12811	MLG		CA930625105
	(CAN) MLG FAILED TO EXTEND AND LOCK. NLG OKAY. ACTUATOR BODY CRACKED AT THE CASTING FLANGE. GEAR UP LANDING CARRIED OUT.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2510		CESSNA				SEAT BACK	BROKEN		7/13/92
		402B				8127354	COCKPIT		CA930628403
	(CAN) SEAT BACK FRAME SUPPORT BROKEN.								
2810		CESSNA				FUEL CELL	DETERIORATED		3/8/96
		402B				41423	FUEL STORAGE SYS		AU960258
	(AUS) LH AUXILIARY FUEL CELL DISINTEGRATING IN AREA OF CONTACT WITH GASKET SEALER - FUEL CELLS ARE A RELATIVELY NEW ITEM								
3230		CESSNA				DRAG BRACE	CRACKED		6/8/93
		402C				514225	NLG		CA930628416
	(CAN) DURING INSPECTION PER CQB 91-9R2, NLG DRAG BRACE FOUND CRACKED.								
3244		CESSNA		MCAULY		TIRE	DEFLATED		2/27/96
		404CESSNA		3FF32C501	5003064		LG WHEEL/BRAKE S	87	AU960246
	(AUS) RH MAIN WHEEL TYRE DEFLATED DUE TO HEAVY APPLICATION OF BRAKES CAUSING FLAT SPOT - OCCURRED DURING CREW TRAINING								
3320		CESSNA	PWA			WIRE	BURNT		5/23/93
		550	JT15D4				FLUORESCENT LITE		CA930628420
	(CAN) WHILE CHANGING A FLUORESCENT LIGHT, ARCING HEARD AND SMOKE NOTICED. WIRE BUNDLE - RUNS UNPROTECTED THROUGH GASPER BOX AND CHAFED AND SHORTED OUT. AREA JUST INSIDE CABIN DOOR NEAR CENTER OF FUSELAGE.								
3246		DHAV				TRACK	CRACKED		7/5/93
		DHC2*				CAO73371	NOSE GEAR		CA930705410
	(CAN) ALL FOUR ENDS FOUND CRACKED.								
2400		DHAV	PWA		HARTMAN	RELAY	WRONG PART		6/24/93
		DHC6*	PT6A20		A701D	A71D	REV CURRENT		CA930702209
	(CAN) REVERSE CURRENT RELAY IS RATED AT 400 AMPS. THE ABOVE UNIT HAS 300 AMP CONTACTS INSTALLED. UNAUTHORIZED MOD USING BOGUS PARTS HAS BEEN DONE.								
2711		DHAV				ROD	BROKEN		5/29/93
		DHC6300				C6CW1481	AILERN SERVO TAB		CA930628419
	(CAN) AILERON SERVO TAB CONTROL ROD FOUND BROKEN AND HANGING DOWN. ROD BROKEN .5 INCH FROM BOTTOM END. REFER TO SB 6/472.								
7722		DHAV	PWA			BUS BAR	SHORTED	1300	8/28/90
		DHC6300	PT6A27			327628	THERMOCOUPLE T5		CA930702210
	(CAN) THERMOCOUPLE BRACKET FIBEROUS INSULATION BREAKS DOWN VERY RAPIDLY CAUSING LOW T5 TEMPERATURE INDICATIONS. OLD TYPE SOLID INSULATION DID NOT GIVE ANY PROBLEMS.								
7722		DHAV	PWA			BUS BAR	SHORTED	1299	3/1/93
		DHC6300	PT6A27			327628	THERMOCOUPLE T5		CA930702204
	(CAN) THERMOCOUPLE BRACKET FIBEROUS INSULATION BREAKS DOWN VERY RAPIDLY CAUSING LOW TERMPERATURE INDICATIONS. OLD TYPE SOLID INSULATION DID NOT GIVE ANY PROBLEM.								
3222		GULSTM				STRUT	FAILED		1/27/96
		AA5				702057505	NLG		AU960262
	(AUS) NOSE LANDING GEAR TUBULAR STRUT FAILED DUE TO INTERNAL CORROSION CAUSED BY WATER ENTRAPMENT IN COVERING BOOT - NLG COLLAPSED -PROPELLER CONTACTED GROUND - SUSPECT BOOT HAD NOT BEEN REMOVED TOINSPECT NLG FOR SOME CONSIDERABLE TIME - PERSONNEL/MAINTENANCE ERROR								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3411		GULSTM			GRUMAN	PITOT TUBE	CRACKED	1382	5/31/93
		AA5A				5232	PITOT SYS		CA930622204
	(CAN) WHEN CANOPY SLID BACK DURING FLIGHT, AIRSPEED INCREASED BY 20 KNOTS. PITOT-TUBE FOUND CRACKED.								
5280		PIPER				HINGE	FAILED	3558	6/14/93
		PA60601P			25006202		RT MLG DOOR		CA930625201
	(CAN) ON POST-FLIGHT INSPECTION, PILOT NOTICED RT MLG DOOR ASKEW. FURTHER INSPECTION REVEALED ALL BUT THREE RIVETS SECURING DOOR HINGE TO FUSELAGE WERE PULLED. THIS IS SECOND OCCURRENCE ON SAME DOOR SAME AIRCRAFT. AIRCRAFT TT: 3,670 HOURS.								
3211		PIPER	LYC			BOLT	INCORRECT FIT		3/6/96
		PA28RT201	IO360C1C6		6750200	401335	RT MLG		AU960244
	(AUS) RH MAIN LANDING GEAR TRUNNION PIN RETAINING BOLT PNO 401335 NOT FITTED OR INCORRECTLY TORQUED FOLLOWING MAINTENANCE - AFTTRUNNION RETAINER PIN PNO 67502-00 DISLODGED - DAMAGE TO WING UPPER SKIN - PERSONNEL/MAINTENANCE ERROR								
5343		PIPER				BOLT	FAILED		2/16/96
		PA28161				AN411A	LT MLG		AU960245
	(AUS) LH MAIN LANDING GEAR OUTBOARD ATTACHMENT BOLT FAILED - BOLT WAS PROTRUDING FROM SKIN								
3210		PIPER				STUD	CRACKED		3/6/96
		PA30				2251200	MAIN GEAR SYS		AU960253
	(AUS) LH AND RH MAIN LANDING GEAR SIDE BRACE STUDS CRACKED - FOUND DURING MAGNETIC PARTICLE INSPECTION IAW AD/PA30/34								
3260		PIPER				WIRE	BROKEN		5/18/93
		PA30					MLG SWITCH		CA930628410
	(CAN) GEARDOWN ON APPROACH SHOWING UNSAFE. POH CHECK LIST COMPLETED, NO EFFECT. LANDED OK. FOUND BROKEN WIRE AT THE FLEX POINT TO THE LT GEAR SAFETY SWITCH IN WHEEL WELL.								
2421		PIPER			PRESTOLITE	BEARING	FAILED	1166	6/7/93
		PA31350			ALU8421	K231	ALTERNATOR		CA930628422
	(CAN) CREW NOTED SPARKS COMING FROM RT ENGINE. ALTERNATOR SWITCHED OFF - LANDED OK. ALTERNATOR BEARINGS FAILED. UNIT REPLACED.								
3260		PIPER				SWITCH	DIRTY		6/12/93
		PA31350				1CH214	LT MLG		CA930702214
	(CAN) ON GEAR DOWN SELECTION, GEAR SHOWING UNSAFE. GEAR CYCLED AND GOT 3 GREEN LIGHTS. LANDING GEAR AND SWITCHES CLEANED AND LUBRICATED. TESTED OK.								
5751		PIPER				SPAR	CRACKED		3/3/96
		PA31350					RT AILERON		AU960235
	(AUS) RH AILERON SPAR CRACKED IN AREA BEHIND INBOARD HINGE ARM ATTACHMENT POINT - FOUND DURING INSPECTION IAW AD/PA31/118								
2421		PIPER	CONT		PRESTOLITE	BEARING	DESTROYED	1389	6/21/93
		PA34220T	TSIO360KB		ALX9425		SLIP RING HSNG	20	CA930702208
	(CAN) ALTERNATOR BEARING DESTROYED IN SLIP RING END HOUSING. ADEQUATE LUBRICATION EVIDENT (CHEVRON SR-2). HOUSING AND STATOR ALSO DAMAGED.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3040		AEROSP				WIPER ARM	CRACKED		2/15/96
		AS355F2				350A89103701	WINDOW AI/DE-ICE		AU960241
	(AUS) WINDSHIELD WIPER ARM CRACKED THROUGH PIN HOLE THAT SECURES SPRINGTO WIPER ARM								
3340		BELL	ALLSN			LAMP	MELTED		6/8/93
		206B	250C20			4596	LANDING LIGHT		CA930618501
	(CAN) SEVERE DETERIORATION OF ELECTRICAL WIRES AT THE LEAD SOLDERED JUNCTION LAMP.								
6300		BELL	PWA			BEARING	ROUGH	2495	5/3/93
		212	PT6T3			2446233	M/R DRIVE		CA930622603
	(CAN) BEARING RUNNING ROUGH CAUSING HEAT AND PAINT DISCOLORATION ON HANGER ASSY.								
7250		BELL	PWA			BLADE	FAILED		6/4/93
		212	PT6T3			32712	POWER TURBINE		CA930702114
	(CAN) DURING HOVER OPERATION, THE NR 2 ENGINE'S INSTRUMENT STARTED TO OSCILLATE AND THE ENGINE BEGAN TO VIBRATE. NR 2 ENGINE WAS SHUTDOWN. AIRCRAFT MADE SINGLE ENGINE LANDING. GROUND INSPECTION REVEALED PART OF A POWER TURBINE BLADE MISSING, SHROUD AROUND TURBINE WHEEL DAMAGED, EXHAUST DIFFUSER CRACKED, AND DAMAGED.								
5302		BELL				PANEL	CRACKED	4667	4/6/93
		222U					TAIL BOOM		CA930625202
	(CAN) DURING DAILY INSPECTION, ENGINEER DISCOVERED A CRACK IN RT SIDE OF TAIL BOOM BETWEEN STN 212.0 AND STN 224.20 JUST BELOW WL 81.29. TAIL BOOM REPAIRED IN ACCORDANCE WITH BHC DRAWING 222-035-150-105.								
6320		BOLKMS				BEARING	CORRODED	2468	3/12/93
		BO105CBS			4638001001	46383224	M/R GR BOX		CA930628417
	(CAN) BEARING ROLLERS SHOWED SIGNS OF CORROSION AND EXCESSIVE PEELING. INPUT PINION GEAR P/N 4638 302 002 HAS HEAVY PEELING ON AREA OF BEARING RUNNING SURFACE.								
6310		HILLER			HILLER	LOCKNUT	LOOSE		2/4/96
		UH12E			TRANSMISSION	23623	ENG/TRANS CPLNG	1034	AU960238
	(AUS) TRANSMISSION CLUTCH BEARING RETENTION NUT LOCKWIRE BROKEN ALLOWING THE OUTER CLUTCH HOUSING TO BIND AGAINST THE FIRST STAGECARRIER - SUSPECT CAUSED BY INSUFFICIENT TORQUE ON NUT DURING LAST TRANSMISION OVERHAUL, NUT AND/OR BEARINGS NOT CORRECTLY SEATED DURING ASSEMBLY AT OVERHAUL OR LOCKWIRE PICKING UP ON SLEEVE AND BREAKING ALLOWING NUT TO LOOSEN DURING FREQUENT AUTOROTATIONS - TRANSMISSION FREEWHEEL LOCKUP - METAL CONTAMINATION OF TRANSMISSION OIL FILTER								
6710		ROBSIN			ROBSIN	BRACKET	BROKEN		2/28/96
		R22BETA				A4372	MAIN RTR CNTRL	1805	AU960237
	(AUS) COLLECTIVE CONTROL SYSTEM BRACKET BROKEN - SUSPECT FAILURE INITIATED DUE TO INCORRECT ASSEMBLY AND LOCKING OF THE EYE END WHICH PASSES THROUGH THE BRACKET								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		AMTRMX	ROTAX			PISTON	CRACKED		1/28/96
		XP503	ROTAX582				ENGINE CYL SEC		AU960250
	(AUS) ENGINE PISTON CROWN CRACKED - THIS DEFECT WAS RECEIVED FROM THE AUF AND IS FOR INFORMATION ONLY								
7250		BELL	PWA			BLADE	FAILED		6/4/93
		212	PT6T3			32712	POWER TURBINE		CA930702114
	(CAN) DURING HOVER OPERATION, THE NR 2 ENGINE'S INSTRUMENT STARTED TO OSCILLATE AND THE ENGINE BEGAN TO VIBRATE. NR 2 ENGINE WAS SHUTDOWN. AIRCRAFT MADE SINGLE ENGINE LANDING. GROUND INSPECTION REVEALED PART OF A POWER TURBINE BLADE MISSING, SHROUD AROUND TURBINE WHEEL DAMAGED, EXHAUST DIFFUSER CRACKED, AND DAMAGED.								
7421		CESSNA	LYC	MCAULY		SPARK PLUG	FOULED		3/1/96
		152	O235L2C	1A103TCM		RHM38E	ENG,IGNITN DISTR	30	AU960240
	(AUS) BOTTOM SPARK PLUGS IN ENGINE FOULED								
8530		CESSNA	CONT		CONT	EXHAUST VALVE	WORN		2/7/96
		182K	O470R		VALVEGUIDE	646283	RT ENG CYLINDER	91	AU960256
	(AUS) ENGINE EXHAUST VALVES PNO 646283 AND VALVE GUIDES PNO 643766 WORNAND LEAKING								
8530		CESSNA	CONT		CONT	CYLINDER	SEPARATED	95	7/3/93
		U206	IO520*			646657CEA4	NR 6		CA930709202
	(CAN) DURING CRUISE, PILOT REPORTED A LOUD BANG AND SUBSEQUENT ENGINE RUNNING ROUGH. INVESTIGATION REVEALED TOTAL SEPARATION OF CYLINDER HEAD FROM BARREL. NR 6 CYLINDER REPLACED.								
8530		CESSNA	CONT			CYLINDER	FAILED	23	5/15/93
		U206B	IO520D			646657CE	EXH RKR SHAFT		CA930622206
	(CAN) ENGINE RUNNING ROUGH. INSPECTION REVEALED THE ROCKER SHAFT RETAINER ON THE EXHAUST VALVE EXPERIENCED CATASTROPHIC FAILURE. THE BREAK CAUSED THE EXHAUST VALVE TO REMAIN CLOSED AND THE ENGINE TO RUN ROUGH. THE ROCKER SHAFT IS THE OLD TYPE WHERE THE BOLT IS SHORT AND THE SHAFT IS HOLLOW.								
8530		CESSNA	CONT		CONT	CYLINDER	CRACKED	168	6/18/93
		337G	IO360G			652995	AFT ENGINE		CA930702213
	(CAN) BLUE SMOKE EMITTED FROM REAR ENGINE COWL ON START-UP. INSPECTION REVEALED SEVERE OIL LEAK DUE TO CYLINDER SEPARATION.								
8530		DHAV	PWA			BUSHING	STRIPPED	100	6/18/93
		DHC2MK1	R985AN14B			3496	CYL SPARK PLUG		CA930628426
	(CAN) DURING INSPECTION DURING COMPRESSION CHECK, THE SOUND OF ESCAPING AIR WAS NOTED AT THE REAR OF THE CYLINDERS. FINGER PRESSURE ONLY WAS REQUIRED TO REMOVE THE REAR SPARK PLUG AND INSERT. DURING A RECENT OVERHAUL OF TWO CYLINDERS, IT APPEARED THE INCORRECT SPARK PLUG INSERT WAS USED.								
7320		DHAV	PWA			P3 LINE	BROKEN	292	6/6/93
		DHC6100	PT6A50			335623	NR 3 ENG		CA930628423
	(CAN) ON CLIMB-OUT, NR 3 ENGINE SPOOLED DOWN. POWER LEVER WAS UNRESPONSIVE. CREW SECURED ENGINE AND AIRCRAFT LANDED. INSPECTION REVEALED A BROKEN P3 LINE ON NR 3 ENGINE. PART TC: 437.								
7313		MOONEY	LYC			FUEL NOZZLE	PLUGGED	180	6/11/93
		M20F	IO360A1A			73772	NR 3		CA930617301
	(CAN) THE ENGINE BEGAN TO RUN ROUGH IN LEVEL FLIGHT. THE ELECTRIC FUEL PUMP WAS TURNED ON AND MIXTURE ADVANCED TO FULL RICH. THE AIRCRAFT LANDED SAFELY UNDER PARTIAL POWER. INVESTIGATION REVEALED THAT NR 3 FUEL NOZZLE WAS PLUGGED AND THE CYLINDER HAD COOLED SO RAPIDLY THAT BOTH SPARK PLUGS HAD FAILED.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		MOONEY	CONT		CONT	CYLINDER	SEPARATED		2/19/96
		M20K	TSIO360MB			317206	ENG CYL SEC	430	AU960232
	(AUS) NO4 CYLINDER HEAD SEPARATED FROM CYLINDER BARREL IN AREA OF SCREWTHREADS - PRE-EXISTING CRACK IN SCREW THREAD AREA								
8520		PIPER	LYC		LYC	CAM FOLLOWER	FAILED		2/27/96
		PA28180	O360A4A		0360A4A	L2809236A	ENGINE		AU960273
	(AUS) ENGINE CAM FOLLOWERS FAILED - SEVERE INTERNAL DAMAGE TO ENGINE - METAL CONTAMINATION OF OIL SYSTEM								
8530		PIPER	LYC			CYLINDER	SEPARATED	359	6/14/93
		PA31350	LTIO540J2BD			LW12966	NR 1		CA930628302
	(CAN) NR1 CYLINDER FAILED IN-FLIGHT. THE CYLINDER BARREL SEPARATED FROM THE HEAD BETWEEN THE TOP BARREL COOLING FIN AND SECOND COOLING FIN. THE CYLINDER HEAD WAS FOUND LAYING IN THE COWLING SUPPORTED BY THE IGNITION WIRES. THE FAILURE CAUSED SEVERE DAMAGE TO THE PISTON AT THE RING LANDS. THE CONNECTING ROD WAS REPLACED AS A PRECAUTIONARY MEASURE.								
8530		PIPER	LYC			CYLINDER STUDS	SHEARED		6/10/93
		PA34200	IO360C1E6			3813	NR 2 CYL		CA930629601
	(CAN) NR 2 CYLINDER STUDS SHEARED OFF.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6122		CESSNA		MCAULY		DRIVE SHAFT	SHEARED		2/18/96
		404CESSNA		3FF32C501		DCFU290D13T6	PROP CNTRL SYS	7	AU960247
	(AUS) PROPELLER GOVERNOR (CSU) DRIVE SHAFT SHEARED								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6110		CESSNA		MCAULY	MCAULY	O-RING	WRONG PART		3/12/96
		402B		3AF32C93		A163352	PROPELLER ASSY	940	AU960272
	(AUS) PROPELLER RETENTION NUT 'O' RING SEALS INCORRECT - PNO A1633-52 SEALS USED IN OIL FILLED HUBS FITTED INSTEAD OF CORRECT PNOA1633-38 SEALS - INCORRECT SEALS BIND ON THE FERRULE CAUSING EXCESSIVE FRICTION DURING OPERATION AND PREVENTING FEATHERING -UNAPPROVED PART - PERSONNEL/MAINTENANCE ERROR								
6114		MOONEY	LYC	HARTZL	HARTZL	HUB	CORRODED		2/28/96
		M20E	IO360A1A	HCC2YK1		220117	PROPELLER ASSY	817	AU960239
	(AUS) PROPELLER HUB SEVERELY CORRODED INTERNALLY IN HUB CAVITY AND AROUND ATTACHMENT BOLT FILLETS								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

U.S. Department
of Transportation
Federal Aviation Administration

SERVICE DIFFICULTY REPORT SUMMARY

GENERAL AVIATION - INDEX

The following information provides a tally of the Service Difficulty Reports (SDR's) contained in this weeks issue of the General Aviation SDR Summary. The totals represent only a summation of the SDR's that were submitted to the FAA, Aviation Data Systems Branch, AFS-620, and processed in time for inclusion in the Summary. The first table is a tally of the number of SDR's submitted through the indicated Flight Standards District Office (FSDO). The second table sorts the SDR's by the aircraft or equipment make and model. The heading at the top of each table provides a two digit Joint Aircraft System/Component (JASC) code grouping (e.g., JASC codes 1100 thru 1800 are represented by the heading labeled 11-18) which categorizes in general, the problem areas for each reported discrepancy.

The Flight Standards Service Difficulty Program objective is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products. This is accomplished by the collection of Service Difficulty and Malfunction or Defect Reports. SDR's are consolidation and collation into common data base where they are analyzed for trends, problems, and alert information. This information is then disseminated to the appropriate segments of the aviation community and to other FAA offices.

The number of SDR's submitted is not an indicator of the mechanical reliability or fitness of an air carrier's aircraft fleet and should not be used as such. The air carriers certificate holding office has the primary responsibility for planning, programming evaluations, and assessing the performance of operators. Questions regarding an air carrier's fleet performance should be directed to the appropriate Flight Standards District Office, Certificate Management Office, or Certificate Management Unit.

GENERAL AVIATION SUMMARY INDEX BY DISTRICT OFFICE

4/19/98 To 4/25/98 ISSUE: 98-17 ZAC-327

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AU S	0	3	7	0	3	5	2	4	24
CA	0	8	10	0	4	2	11	7	42
CE 01	0	0	0	0	0	1	0	0	1
CE 03	0	0	0	0	1	0	0	0	1
CE 05	0	0	0	0	2	0	0	0	2
CE 07	0	0	0	0	0	0	1	0	1
EA 11	0	0	0	0	0	0	1	0	1
EA 13	0	1	1	0	0	0	2	3	7
EA 17	0	0	1	0	0	1	0	0	2
EA 25	0	1	0	0	0	0	0	1	2
FS 01	0	1	2	0	0	17	2	0	22
GL 13	0	0	0	0	0	0	0	1	1
GL 19	0	0	0	0	2	0	1	0	3
GL 25	0	2	0	0	2	0	0	0	4
NE 01	0	0	0	0	0	0	1	1	2
NM 01	0	0	0	0	0	0	1	0	1
NM 11	0	2	0	0	0	3	5	0	10
NM 13	0	0	0	0	1	0	0	0	1
SO 03	0	1	0	0	0	0	0	0	1
SO 09	0	0	0	0	0	0	1	0	1
SO 15	0	1	3	0	0	0	0	0	4
SO 16	0	0	0	0	0	1	2	0	3
SO 17	0	0	0	0	0	1	0	0	1
SW 01	0	0	0	0	0	0	0	1	1
SW 03	0	5	9	0	1	18	0	0	33
SW 11	0	0	0	0	0	0	1	0	1

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
SW 13	0	1	1	0	2	3	5	0	12
SW 15	0	1	0	0	0	3	0	0	4
SW 19	0	0	0	0	0	2	0	0	2
WP 03	0	0	1	0	0	0	0	0	1
WP 07	0	1	0	0	0	0	0	1	2
WP 11	0	2	1	0	2	0	1	0	6
WP 15	0	0	0	0	1	0	0	0	1
WP 17	0	0	0	0	0	1	0	0	1
TOTALS	**0**	**30**	**36**	**0**	**21**	**58**	**37**	**19**	**201**

(End of GENERAL AVIATION SUMMARY INDEX by DISTRICT OFFICE Report)

GENERAL AVIATION SUMMARY INDEX by MANUFACTURER MAKE and MODEL

4/19/98 To 4/25/98 ISSUE: 98-17 ZAC-327

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AEROSP	AS355F2	0	0	1	0	0	0	0	0	1
AMTRMX	XP503	0	0	1	0	0	0	0	1	2
AYRES	S2*	0	0	0	0	1	0	0	0	1
AYRES	S2RT34NORMAL	0	0	0	0	0	1	0	0	1
BBAVIA	8GCBC	0	2	0	0	0	0	0	0	2
BBAVIA	8KCAB	0	1	0	0	0	0	0	0	1
BEECH	200BEECH	0	0	0	0	1	0	0	0	1
BEECH	58	0	1	0	0	0	0	0	0	1
BEECH	65	0	0	0	0	1	0	0	0	1
BEECH	76	0	1	0	0	0	0	0	0	1
BEECH	99	0	0	0	0	0	0	1	0	1
BEECH	B100	0	0	0	0	0	0	1	0	1
BEECH	B200	0	0	0	0	1	0	0	0	1
BEECH	B200C	0	1	0	0	0	0	0	0	1
BEECH	B99	0	0	0	0	0	0	0	1	1
BEECH	C23	0	0	0	0	2	0	0	0	2
BEECH	C90A	0	0	3	0	0	0	0	0	3
BELL	206B	0	0	1	0	0	2	0	0	3
BELL	206B3	0	0	0	0	1	1	0	0	2
BELL	206L	0	1	1	0	0	9	3	0	14
BELL	206L1	0	0	2	0	0	1	0	0	3
BELL	206L3	0	0	1	0	0	0	0	0	1
BELL	212	0	1	3	0	1	9	7	0	21
BELL	214ST	0	2	4	0	0	2	0	0	8
BELL	222U	0	0	0	0	1	0	0	0	1
BELL	407	0	0	0	0	0	14	0	0	14
BELL	412	0	0	2	0	0	0	0	0	2

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
BNORM	BN2B20	0	0	0	0	0	0	1	0	1
BOLKMS	BK117A4	0	2	0	0	0	0	0	0	2
BOLKMS	BO105CBS	0	0	0	0	0	1	0	0	1
BOLKMS	BO105LSA3	0	1	0	0	0	2	5	0	8
CESSNA	150G	0	2	0	0	2	0	0	0	4
CESSNA	152	0	0	0	0	0	0	1	1	2
CESSNA	170B	0	0	0	0	0	0	1	0	1
CESSNA	172L	0	0	0	0	0	0	1	0	1
CESSNA	172N	0	0	1	0	0	0	0	0	1
CESSNA	172P	0	0	1	0	0	0	0	0	1
CESSNA	172RG	0	0	1	0	0	0	0	0	1
CESSNA	177RG	0	0	0	0	0	0	0	1	1
CESSNA	180	0	1	0	0	0	0	0	0	1
CESSNA	180H	0	0	0	0	0	0	1	0	1
CESSNA	182K	0	0	0	0	0	0	0	1	1
CESSNA	182P	0	0	0	0	0	0	0	1	1
CESSNA	182R	0	0	0	0	2	0	0	0	2
CESSNA	188B	0	1	0	0	0	0	0	0	1
CESSNA	208B	0	1	0	0	0	0	0	0	1
CESSNA	210M	0	0	0	0	0	0	1	0	1
CESSNA	320A	0	0	1	0	0	0	0	0	1
CESSNA	337	0	0	1	0	0	0	0	0	1
CESSNA	337G	0	1	0	0	0	0	0	1	2
CESSNA	340A	0	0	1	0	0	0	0	0	1
CESSNA	402B	0	2	0	0	0	2	0	0	4
CESSNA	402C	0	0	1	0	0	0	0	0	1
CESSNA	404	0	0	0	0	0	0	0	1	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
CESSNA	404CESSNA	0	0	1	0	0	1	0	0	2
CESSNA	414A	0	1	0	0	0	0	0	0	1
CESSNA	550	0	0	1	0	1	0	1	0	3
CESSNA	A185E	0	0	0	0	0	0	1	0	1
CESSNA	S550	0	1	0	0	0	0	0	0	1
CESSNA	U206	0	0	0	0	0	0	1	1	2
CESSNA	U206B	0	0	0	0	0	0	0	1	1
CESSNA	U206E	0	0	0	0	1	0	0	0	1
CESSNA	U206F	0	0	0	0	0	0	1	0	1
DHAV	DHC2*	0	0	1	0	0	0	0	0	1
DHAV	DHC2MK1	0	0	0	0	0	0	0	1	1
DHAV	DHC6*	0	1	0	0	0	0	0	0	1
DHAV	DHC6100	0	0	0	0	0	0	1	0	1
DHAV	DHC6300	0	2	0	0	0	0	2	0	4
DOUG	MD900	0	0	0	0	0	1	0	0	1
GULSTM	112TCA	0	0	1	0	0	0	0	0	1
GULSTM	500B	0	0	0	0	0	3	0	0	3
GULSTM	560	0	1	0	0	1	0	0	0	2
GULSTM	690A	0	0	0	0	0	0	1	0	1
GULSTM	690B	0	0	0	0	2	0	0	0	2
GULSTM	AA1A	0	0	0	0	0	0	0	1	1
GULSTM	AA5	0	0	1	0	0	0	0	0	1
GULSTM	AA5A	0	0	1	0	0	0	0	0	1
HILLER	UH12E	0	0	0	0	0	1	0	0	1
HUGHES	369D	0	1	0	0	0	0	0	0	1
MOONEY	M20E	0	0	0	0	0	1	0	0	1
MOONEY	M20F	0	0	0	0	0	0	1	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
MOONEY	M20J	0	0	0	0	0	0	1	0	1
MOONEY	M20K	0	0	0	0	0	0	0	1	1
PIPER	PA28140	0	0	0	0	0	1	0	0	1
PIPER	PA28161	0	0	0	0	1	1	0	0	2
PIPER	PA28180	0	0	0	0	0	0	0	1	1
PIPER	PA28R200	0	0	0	0	0	0	0	1	1
PIPER	PA28R201T	0	0	0	0	0	0	1	0	1
PIPER	PA28RT201	0	0	1	0	0	0	0	0	1
PIPER	PA30	0	0	2	0	0	0	0	0	2
PIPER	PA31350	0	1	1	0	1	0	0	3	6
PIPER	PA31T	0	0	0	0	0	0	1	0	1
PIPER	PA34200	0	0	0	0	0	0	0	1	1
PIPER	PA34220T	0	1	0	0	0	0	0	0	1
PIPER	PA46310P	0	0	0	0	0	0	1	0	1
PIPER	PA60601P	0	0	0	0	1	0	0	0	1
ROBSIN	R22BETA	0	0	0	0	0	1	0	0	1
SKRSKY	S58ET	0	0	0	0	0	0	1	0	1
SNIAS	AS350B2	0	0	0	0	0	3	0	0	3
SNIAS	AS350BA	0	0	0	0	0	1	0	0	1
TOTALS		**0**	**30**	**36**	**0**	**21**	**58**	**37**	**19**	**201**

(End of AIR CARRIER SUMMARY INDEX by OPERATOR Report)

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

PREFACE

The Joint Aircraft System/Component (JASC) Code Table is a modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the Federal Aviation Administration's (FAA), Aviation Data Systems Branch (AFS-620). Technical support was provided by the Galaxy Scientific Corporation, and various representatives of the air carrier and general aviation community.

Over the past four years, the JASC format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also recently adopted this new stardard.

This code table is constructed by using the new JASC four (4) digit code, along with an abbreviated code title. The abbreviated titles have been modified in some cases to clarify the intended use of the accompanying code. This table can be used as a quick reference chart, to assist in the coding and review of aircraft structures or systems data (i.e., Service Difficulty Report (SDR), Accident/Incident Report).

The current coding scheme used in the JASC code was introduced in May 1991, for the technical classification of SDR's. Its predecessor, the FAA aircraft system/component code, was a similar but more complex eight-digit code which was developed over 25 years ago. It was constructed around the computer technology of that period. It consisted of a four digit numerical code plus a four alpha character code to make data retrieval possible. Since that time, computer technology has advanced many fold. Reducing the code from eight to four characters simplifies coding, and in some cases, makes JASC coding match the ATA Specification 100 first three digits, which are used to identify aircraft systems. The ATA code does not reference the fourth digit, so it is free to be used for identifying components.

The JASC code aircraft structural section has increased due to problems inherent with aging aircraft. As an example, FAA code 5301 SXBD was expanded to 20 items due to the high rate of reporting in this area (8021 structural reports were received in 1989). In some instances, there was very little reporting and codes were combined into other systems if the safety impact was not significant. The overall reduction in codes has been from 568 FAA codes to 488 JASC codes, with the significant increase being in the structural area as stated earlier.

The JASC code divides the engine section into two major code groups to separate the turbine and reciprocating engines. The codes for the turbine engines are in JASC Chapter 72, Turbine/Turboprop Engine. The codes for the reciprocating engines are now exclusively found in JASC Chapter 85, Reciprocating Engine.

The other major deviation from ATA Spec 100 is in ATA section 2730, specifically involves the stall warning system. Early technology (primarily on smaller aircraft) directly linked the sensing of flight attitude to one of the components which furnished the means of manually controlling the flight attitude characteristics (elevator). Today, most large transport category aircraft utilize electronic units to sense the change in the environmental condition called stall, and use the data to influence navigation. ATA section 3410, Flight Environment Data, includes high speed warning in its code definition. Stall warning (low speed) is the reciprocal term of high speed warning, so its filing under the same code appears more logical. Thus, with the JASC code it was decided to move the stall warning system to Chapter 34 under the separate code JASC code 3418, Stall Warning System.

The FAA is continuing to pursue worldwide involvement from operators and manufacturers in addressing the need for international standardization of aircraft system/component codes. The ultimate goal is to develop a universal aircraft/component numbering standard which can be used in the manufacturer's maintenance manual, wiring diagram manual, system manuals and illustrated parts catalog. This harmonized standard must be a usable standard for the aircraft manufacturers, air carrier operators and the general aviation community.

We welcome comments and feedback regarding the possible forming of working groups to achieve this long range consideration of possibly harmonizing the ATA Specification 100 code and the JASC code. Comments may be directed to the FAA, Aviation Data Sytem Branch, AFS-620, P.O. Box 25082, Oklahoma City, OK 73125.

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

JASC/ TITLE

11 PLACARDS AND MARKINGS

1100 PLACARDS AND MARKINGS

12 SERVICING

1210 FUEL SERVICING
1220 OIL SERVICING
1230 HYDRAULIC FLUID SERVICING
1240 COOLANT SERVICING

18 HELICOPTER VIBRATION

1800 HELICOPTER VIB/NOISE ANALYSIS
1810 HELICOPTER VIBRATION ANALYSIS
1820 HELICOPTER NOISE ANALYSIS

21 AIR CONDITIONING

2100 AIR CONDITIONING SYSTEM
2110 CABIN COMPRESSOR SYSTEM
2120 AIR DISTRIBUTION SYSTEM
2121 AIR DISTRIBUTION FAN
2130 CABIN PRESSURE CONTROL SYSTEM
2131 CABIN PRESSURE CONTROLLER
2132 CABIN PRESSURE INDICATOR
2133 PRESSURE REGUL/OUTFLOW VALVE
2134 CABIN PRESSURE SENSOR
2140 HEATING SYSTEM
2150 CABIN COOLING SYSTEM
2160 CABIN TEMPERATURE CONTROL SYSTEM
2161 CABIN TEMPERATURE CONTROLLER
2162 CABIN TEMPERATURE INDICATOR
2163 CABIN TEMPERATURE SENSOR
2170 HUMIDITY CONTROL SYSTEM

22 AUTO FLIGHT

2200 AUTO FLIGHT SYSTEM
2210 AUTOPILOT SYSTEM
2211 AUTOPILOT COMPUTER
2212 ALTITUDE CONTROLLER
2213 FLIGHT CONTROLLER
2214 AUTOPILOT TRIM INDICATOR
2215 AUTOPILOT MAIN SERVO
2216 AUTOPILOT TRIM SERVO
2220 SPEED-ATTITUDE CORRECT. SYSTEM
2230 AUTO THROTTLE SYSTEM
2250 AERODYNAMIC LOAD ALLEVIATING

23 COMMUNICATIONS

2300 COMMUNICATIONS SYSTEM
2310 HF COMMUNICATION SYSTEM
2311 UHF COMMUNICATION SYSTEM
2312 VHF COMMUNICATION SYSTEM
2320 DATA TRANSMISSION AUTO CALL
2330 ENTERTAINMENT SYSTEM
2340 INTERPHONE & PA SYSTEM
2350 AUDIO INTEGRATING SYSTEM
2360 STATIC DISCHARGE SYSTEM
2370 AUDIO/VIDEO MONITORING

24 ELECTRICAL POWER

2400 ELECTRICAL POWER SYSTEM
2410 ALTERNATOR-GENERATOR DRIVE
2420 AC GENERATION SYSTEM
2421 AC GENERATOR-ALTERNATOR
2422 AC INVERTER
2423 PHASE ADAPTER

24 ELECTRICAL POWER CONT'D

2424 AC REGULATOR
2425 AC INDICATING SYSTEM
2430 DC GENERATING SYSTEM
2431 BATTERY OVERHEAT WARN. SYSTEM
2432 BATTERY/CHARGER SYSTEM
2433 DC RECTIFIER-CONVERTER
2434 DC GENERATOR-ALTERNATOR
2435 STARTER-GENERATOR
2436 DC REGULATOR
2437 DC INDICATING SYSTEM
2440 EXTERNAL POWER SYSTEM
2450 AC POWER DISTRIBUTION SYSTEM
2460 DC POWER/DISTRIBUTION SYSTEM

25 EQUIPMENT/FURNISHINGS

2500 CABIN EQUIPMENT/FURNISHINGS
2510 FLIGHT COMPARTMENT EQUIPMENT
2520 PASSENGER COMPARTMENT EQUIPMENT
2530 BUFFET/GALLEYS
2540 LAVATORIES
2550 CARGO COMPARTMENTS
2551 AGRICULTURAL SPRAY SYSTEM
2560 EMERGENCY EQUIPMENT
2561 LIFE JACKET
2562 EMERGENCY LOCATOR BEACON
2563 PARACHUTE
2564 LIFE RAFT
2565 ESCAPE SLIDE
2570 ACCESSORY COMPARTMENT
2571 BATTERY BOX STRUCTURE
2572 ELECTRONIC SHELF SECTION

26 FIRE PROTECTION

2600 FIRE PROTECTION SYSTEM
2610 DETECTION SYSTEM
2611 SMOKE DETECTION
2612 FIRE DETECTION
2613 OVERHEAT DETECTION
2620 EXTINGUISHING SYSTEM
2621 FIRE BOTTLE, FIXED
2622 FIRE BOTTLE, PORTABLE

27 FLIGHT CONTROLS

2700 FLIGHT CONTROL SYSTEM
2701 CONTROL COLUMN SECTION
2710 AILERON CONTROL SYSTEM
2711 AILERON TAB CONTROL SYSTEM
2720 RUDDER CONTROL SYSTEM
2721 RUDDER TAB CONTROL SYSTEM
2722 RUDDER ACTUATOR
2730 ELEVATOR CONTROL SYSTEM
2731 ELEVATOR TAB CONTROL SYSTEM
2740 STABILIZER CONTROL SYSTEM
2741 STABILIZER POSITION INDICATING
2742 STABILIZER ACTUATOR
2750 TE FLAP CONTROL SYSTEM
2751 TE FLAP POSITION IND. SYSTEM
2752 TE FLAP ACTUATOR
2760 DRAG CONTROL SYSTEM
2761 DRAG CONTROL ACTUATOR
2770 GUST LOCK/DAMPER SYSTEM
2780 LE FLAP CONTROL SYSTEM
2781 LE FLAP POSITION IND. SYSTEM
2782 LE FLAP ACTUATOR

28 FUEL

2800 AIRCRAFT FUEL SYSTEM
2810 FUEL STORAGE
2820 ACFT FUEL DISTRIB. SYSTEM
2821 ACFT FUEL FILTER/STRAINER
2822 FUEL BOOST PUMP
2823 FUEL SELECTOR/SHUTOFF VALVE
2824 FUEL TRANSFER VALVE
2830 FUEL DUMP SYSTEM
2840 ACFT FUEL INDICATING
2841 FUEL QUANTITY INDICATOR
2842 FUEL QUANTITY SENSOR
2843 FUEL TEMPERATURE INDICATING
2844 FUEL PRESSURE INDICATOR

29 HYDRAULIC POWER

2900 HYDRAULIC POWER SYSTEM
2910 HYDRAULIC, MAIN SYSTEM
2911 HYDRAULIC POWER-ACCUMULATOR-MAIN
2912 HYDRAULIC FILTER-MAIN SYSTEM
2913 HYDRAULIC PUMP. ELECT-ENG.-MAIN
2914 HYDRAULIC HANDPUMP-MAIN
2915 HYDRAULIC PRESSURE RELIEF VLV-MAIN
2916 HYDRAULIC RESERVOIR-MAIN
2917 HYDRAULIC PRESSURE REGULATOR-MAIN
2920 HYDRAULIC, AUXILIARY SYSTEM
2921 HYDRAULIC ACCUMULATOR-AUXILIARY
2922 HYDRAULIC FILTER-AUXILIARY
2923 HYDRAULIC PUMP-AUXILIARY
2925 HYDRAULIC PRESSURE RELIEF-AUXILIARY
2926 HYDRAULIC RESERVOIR-AUXILIARY
2927 HYDRAULIC PRESSURE REGULATOR-AUX.
2930 HYDRAULIC SYSTEM INDICATING
2931 HYDRAULIC PRESSURE INDICATOR
2932 HYDRAULIC PRESSURE SENSOR
2933 HYDRAULIC QUANTITY INDICATOR
2934 HYDRAULIC QUANTITY SENSOR

30 ICE AND RAIN PROTECTION

3000 ICE/RAIN PROTECTION SYSTEM
3010 AIRFOIL ANTI/DE-ICE SYSTEM
3020 AIR INTAKE ANTI/DE-ICE SYSTEM
3030 PITOT/STATIC ANTI-ICE SYSTEM
3040 WINDSHIELD/DOOR RAIN/ICE REMOVAL
3050 ANTENNA/RADOME ANTI-ICE/DE-ICE SYSTEM
3060 PROP/ROTOR ANTI-ICE/DE-ICE SYSTEM
3070 WATER LINE ANTI-ICE SYSTEM
3080 ICE DETECTION

31 INSTRUMENTS

3100 INDICATING/RECORDING SYSTEM
3110 INSTRUMENT PANEL
3120 INDEPENDENT INSTRUMENTS (CLOCK, ETC.)
3130 DATA RECORDERS (FLT/MAINT)
3140 CENTRAL COMPUTERS (EICAS)
3150 CENTRAL WARNING
3160 CENTRAL DISPLAY
3170 AUTOMATIC DATA

32 LANDING GEAR

3200 LANDING GEAR SYSTEM
3201 LANDING GEAR/WHEEL FAIRING
3210 MAIN LANDING GEAR
3211 MAIN LANDING GEAR ATTACH SECTION
3212 EMERGENCY FLOTATION SECTION
3213 MAIN LANDING GEAR STRUT/AXLE/TRUCK
3220 NOSE/TAIL LANDING GEAR
3221 NOSE/TAIL LANDING GEAR ATTACH SECTION
3222 NOSE/TAIL LANDING GEAR STRUT/AXLE
3230 LANDING GEAR RETRACT/EXT. SYSTEM
3231 LANDING GEAR DOOR RETRACT SECTION
3232 LANDING GEAR DOOR ACTUATOR
3233 LANDING GEAR ACTUATOR
3234 LANDING GEAR SELECTOR
3240 LANDING GEAR BRAKE SYSTEM
3241 BRAKE ANTI-SKID SECTION
3242 BRAKE
3243 MASTER CYL/BRAKE VALVE
3244 TIRE
3245 TIRE TUBE
3246 WHEEL/SKI/FLOAT
3250 LANDING GEAR STEERING SYSTEM
3251 STEERING UNIT
3252 SHIMMY DAMPER
3260 LANDING GEAR POSITION & WARNING
3270 AUXILIARY GEAR (TAIL SKID)

33 LIGHTS

3300 LIGHTING SYSTEM
3310 FLIGHT COMPARTMENT LIGHTING
3320 PASSENGER COMPARTMENT LIGHTING
3330 CARGO COMPARTMENT LIGHTING
3340 EXTERIOR LIGHTING
3350 EMERGENCY LIGHTING

34 NAVIGATION

3400 NAVIGATION SYSTEM
3410 FLIGHT ENVIRONMENT DATA
3411 PITOT/STATIC SYSTEM
3412 OUTSIDE AIR TEMP. IND./SENSOR
3413 RATE OF CLIMB INDICATOR
3414 AIRSPEED/MACH INDICATING
3415 HIGH SPEED WARNING
3416 ALTIMETER, BAROMETRIC/ENCODER

34 NAVIGATION CONT'D

3417 AIR DATA COMPUTER
3418 STALL WARNING SYSTEM
3420 ATTITUDE AND DIRECTION DATA SYSTEM
3421 ATTITUDE GYRO & IND. SYSTEM
3422 DIRECTIONAL GYRO & IND. SYSTEM
3423 MAGNETIC COMPASS
3424 TURN & BANK/RATE OF TURN INDICATOR
3425 INTEGRATED FLT. DIRECTOR SYSTEM
3430 LANDING & TAXI AIDS
3431 LOCALIZER/VOR SYSTEM
3432 GLIDE SLOPE SYSTEM
3433 MICROWAVE LANDING SYSTEM
3434 MARKER BEACON SYSTEM
3435 HEADS UP DISPLAY SYSTEM
3436 WIND SHEAR DETECTION SYSTEM
3440 INDEPENDENT POS. DETERMINING SYSTEM
3441 INERTIAL GUIDANCE SYSTEM
3442 WEATHER RADAR SYSTEM
3443 DOPPLER SYSTEM
3444 GROUND PROXIMITY SYSTEM
3445 AIR COLLISION AVOIDANCE SYSTEM (TCAS)
3446 NON RADAR WEATHER SYSTEM
3450 DEPENDENT POSITION DETERMINING SYSTEM
3451 DME/TACAN SYSTEM
3452 ATC TRANSPONDER SYSTEM
3453 LORAN SYSTEM
3454 VOR SYSTEM
3455 ADF SYSTEM
3456 OMEGA NAVIGATION SYSTEM
3457 GLOBAL POSITIONING SYSTEM
3460 FLIGHT MANAGE. COMPUTING SYSTEM

35 OXYGEN

3500 OXYGEN SYSTEM
3510 CREW OXYGEN SYSTEM
3520 PASSENGER OXYGEN SYSTEM
3530 PORTABLE OXYGEN SYSTEM

36 PNEUMATIC

3600 PNEUMATIC SYSTEM
3610 PNEUMATIC DISTRIBUTION SYSTEM
3620 PNEUMATIC INDICATING SYSTEM

37 VACUUM

3700 VACUUM SYSTEM
3710 VACUUM DISTRIBUTION SYSTEM
3720 VACUUM INDICATING SYSTEM

38 WATER/WASTE

3800 WATER & WASTE SYSTEM
3810 POTABLE WATER SYSTEM
3820 WASH WATER SYSTEM
3830 WASTE DISPOSAL SYSTEM
3840 AIR SUPPLY (WATER PRESS. SYSTEM)

45 CENTRAL MAINT. SYSTEM

4500 CENTRAL MAINT. COMPUTER

49 AIRBORNE AUXILIARY POWER

4900 AIRBORNE APU SYSTEM
4910 APU COWLING/CONTAINMENT
4920 APU CORE ENGINE
4930 APU ENGINE FUEL & CONTROL
4940 APU START/IGNITION SYSTEM
4950 APU BLEED AIR SYSTEM
4960 APU CONTROLS
4970 APU INDICATING SYSTEM
4980 APU EXHAUST SYSTEM
4990 APU OIL SYSTEM

51 STANDARD PRACTICES/STRUCTURES

5100 STANDARD PRACTICES/STRUCTURES
5101 AIRCRAFT STRUCTURES
5102 BALLOON REPORTS

52 DOORS

5200 DOORS
5210 PASSENGER/CREW DOORS
5220 EMERGENCY EXIT
5230 CARGO/BAGGAGE DOORS
5240 SERVICE DOORS
5241 GALLEY DOORS
5242 E/E COMPARTMENT DOORS
5243 HYDRAULIC COMPARTMENT DOORS
5244 ACCESSORY COMPARTMENT DOORS
5245 AIR CONDITIONING COMPART. DOORS
5246 FLUID SERVICE DOORS
5247 APU DOORS
5248 TAIL CONE DOORS
5250 FIXED INNER DOORS
5260 ENTRANCE STAIRS
5270 DOOR WARNING SYSTEM
5280 LANDING GEAR DOORS

53 FUSELAGE

5300 FUSELAGE STRUCTURE (GENERAL)
5301 AERIAL TOW EQUIPMENT
5302 ROTORCRAFT TAIL BOOM
5310 FUSELAGE MAIN STRUCTURE
5311 FUSELAGE MAIN FRAME
5312 FUSELAGE MAIN BULKHEAD
5313 FUSELAGE MAIN LONGERON/STRINGER
5314 FUSELAGE MAIN KEEL
5315 FUSELAGE MAIN FLOOR BEAM
5320 FUSELAGE MISCELLANEOUS STRUCTURE
5321 FUSELAGE FLOOR PANEL
5322 FUSELAGE INTERNAL MOUNT STRUCTURE
5323 FUSELAGE INTERNAL STAIRS
5324 FUSELAGE FIXED PARTITIONS
5330 FUSELAGE MAIN PLATE/SKIN
5340 FUSELAGE MAIN ATTACH FITTINGS
5341 WING ATTACH FITTINGS (ON FUSELAGE)
5342 STABILIZER ATTACH FITTINGS
5343 LANDING GEAR ATTACH FITTINGS
5344 FUSELAGE DOOR HINGES
5345 FUSELAGE EQUIPMENT ATTACH FITTINGS
5346 POWERPLANT ATTACH FITTINGS
5347 SEAT/CARGO ATTACH FITTINGS
5350 FUSELAGE AERODYNAMIC FAIRINGS

54 NACELLES/PYLONS

5400 NACELLE/PYLON STRUCTURE
5410 MAIN FRAME (ON NACELLE/PYLON)
5411 FRAME/SPAR/RIB(NACELLE/PYLON)
5412 BULKHEAD/FIREWALL (NAC/PYLON)
5413 LONGERON/STRINGER (NAC/PYLON)
5414 PLATE SKIN (NAC/PYLONS)
5415 ATTACH FITTINGS (NAC/PYLON)

55 STABILIZERS

5500 EMPENNAGE STRUCTURE
5510 HORIZONTAL STABILIZER STRUCTURE
5511 HORIZONTAL STABILIZER SPAR/RIB
5512 HORIZONTAL STABILIZER PLATE/SKIN
5513 HORIZONTAL STABILIZER TAB STRUCTURE
5520 ELEVATOR STRUCTURE

55 STABILIZERS CONT'D

5521 ELEVATOR SPAR/RIB STRUCTURE
5522 ELEVATOR PLATES/SKIN STRUCTURE
5523 ELEVATOR TAB STRUCTURE
5530 VERTICAL STABILIZER STRUCTURE
5531 VERTICAL STABILIZER SPAR/RIB STRUCTURE
5532 VERTICAL STABILIZER PLATES/SKIN
5533 VENTRAL STRUCTURE (ON VERT. STAB)
5540 RUDDER STRUCTURE
5541 RUDDER SPAR/RIB STRUCTURE
5542 RUDDER PLATE/SKIN STRUCTURE
5543 RUDDER TAB STRUCTURE
5550 EMPENNAGE FLT. CONT. ATTACH FITTING
5551 HORIZONTAL STABILIZER ATTACH FITTING
5552 ELEVATOR/TAB ATTACH FITTINGS
5553 VERT. STAB. ATTACH FITTINGS
5554 RUDDER/TAB ATTACH FITTINGS

56 WINDOWS

5600 WINDOW/WINDSHIELD SYSTEM
5610 FLIGHT COMPARTMENT WINDOWS
5620 PASSENGER COMPARTMENT WINDOWS
5630 DOOR WINDOWS
5640 INSPECTION WINDOWS

57 WINGS

5700 WING STRUCTURE
5710 WING MAIN FRAME STRUCTURE
5711 WING SPAR STRUCTURE
5712 WING RIB STRUCTURE
5713 WING LONGERON/STRINGER
5714 WING CENTER BOX
5720 WING MISCELLANEOUS STRUCTURE
5730 WING PLATES/SKINS
5740 WING ATTACH FITTINGS
5741 WING, FUSELAGE ATTACH FITTINGS
5742 WING, NAC/PYLON ATTACH FITTINGS
5743 WING, LANDING GEAR ATTACH FITTINGS
5744 CONTROL SURFACE ATTACH FITTINGS
5750 WING CONTROL SURFACE STRUCTURE
5751 AILERON STRUCTURE
5752 AILERON TAB STRUCTURE
5753 TE FLAP STRUCTURE
5754 LEADING EDGE DEVICE STRUCTURE
5755 SPOILER STRUCTURE

61 PROPELLERS/PROPULSORS

6100 PROPELLER SYSTEM
6110 PROPELLER ASSEMBLY
6111 PROPELLER BLADE SECTION
6112 PROPELLER DE-ICE BOOT SECTION
6113 PROPELLER SPINNER SECTION
6114 PROPELLER HUB SECTION
6120 PROPELLER CONTROL SYSTEM
6121 PROPELLER SYNCHRONIZER SECTION
6122 PROPELLER GOVERNOR
6123 PROPELLER FEATHERING/REVERSING
6130 PROPELLER BRAKING
6140 PROPELLER INDICATING SYSTEM

62 MAIN ROTOR

6200 MAIN ROTOR SYSTEM
6210 MAIN ROTOR BLADES
6220 MAIN ROTOR HEAD
6230 MAIN ROTOR MAST/SWASHPLATE
6240 MAIN ROTOR INDICATING SYSTEM

63 MAIN ROTOR DRIVE

6300 MAIN ROTOR DRIVE SYSTEM
6310 ENGINE/TRANSMISSION COUPLING
6320 MAIN ROTOR GEARBOX
6321 MAIN ROTOR BRAKE
6322 ROTORCRAFT COOLING FAN SYSTEM
6330 MAIN ROTOR TRANSMISSION MOUNT
6340 ROTOR DRIVE INDICATING SYSTEM

64 TAIL ROTOR

6400 TAIL ROTOR SYSTEM
6410 TAIL ROTOR BLADE
6420 TAIL ROTOR HEAD
6440 TAIL ROTOR INDICATING SYSTEM

65 TAIL ROTOR DRIVE

6500 TAIL ROTOR DRIVE SYSTEM
6510 TAIL ROTOR DRIVE SHAFT
6520 TAIL ROTOR GEARBOX
6540 TAIL ROTOR DRIVE INDICATING SYSTEM

67 ROTORS FLIGHT CONTROL

6700 ROTORCRAFT FLIGHT CONTROL
6710 MAIN ROTOR CONTROL
6711 TILT ROTOR FLIGHT CONTROL
6720 TAIL ROTOR CONTROL SYSTEM
6730 ROTORCRAFT SERVO SYSTEM

71 POWERPLANT

7100 POWERPLANT SYSTEM
7110 ENGINE COWLING SYSTEM
7111 COWL FLAP SYSTEM
7112 ENGINE AIR BAFFLE SECTION
7120 ENGINE MOUNT SECTION
7130 ENGINE FIRESEALS
7160 ENGINE AIR INTAKE SYSTEM
7170 ENGINE DRAINS

72 TURBINE/TURBOPROP ENGINE

7200 ENGINE (TURBINE/TURBOPROP)
7210 TURBINE ENGINE REDUCTION GEAR
7220 TURBINE ENGINE AIR INLET SECTION
7230 TURBINE ENGINE COMPRESSOR SECTION
7240 TURBINE ENGINE COMBUSTION SECTION
7250 TURBINE SECTION
7260 TURBINE ENGINE ACCESSORY DRIVE
7261 TURBINE ENGINE OIL SYSTEM
7270 TURBINE ENGINE BYPASS SECTION

73 ENGINE FUEL & CONTROL

7300 ENGINE FUEL & CONTROL
7310 ENGINE FUEL DISTRIBUTION
7311 ENGINE FUEL-OIL COOLER
7312 FUEL HEATER
7313 FUEL INJECTOR NOZZLE
7314 ENGINE FUEL PUMP
7320 FUEL CONTROLLING SYSTEM
7321 FUEL CONTROL/ELECTRONIC
7322 FUEL CONTROL/CARBURETOR
7323 TURBINE GOVERNOR
7324 FUEL DIVIDER
7330 ENGINE FUEL INDICATING SYSTEM
7331 FUEL FLOW INDICATING
7332 FUEL PRESSURE INDICATING
7333 FUEL FLOW SENSOR
7334 FUEL PRESSURE SENSOR

74 IGNITION

7400 IGNITION SYSTEM
7410 IGNITION POWER SUPPLY
7411 LOW TENSION COIL
7412 EXCITER
7413 INDUCTION VIBRATOR
7414 MAGNETO/DISTRIBUTOR
7420 IGNITION HARNESS (DISTRIBUTION)
7421 SPARK PLUG/IGNITER
7430 IGNITION SWITCHING

75 AIR

7500 ENGINE BLEED AIR SYSTEM
7510 ENGINE ANTI-ICING SYSTEM
7520 ENGINE COOLING SYSTEM
7530 COMPRESSOR BLEED CONTROL
7531 COMPRESSOR BLEED GOVERNOR
7532 COMPRESSOR BLEED VALVE
7540 BLEED AIR INDICATING SYSTEM

76 ENGINE CONTROLS

7600 ENGINE CONTROLS
7601 ENGINE SYNCHRONIZING
7602 MIXTURE CONTROL
7603 POWER LEVER
7620 ENGINE EMERGENCY SHUTDOWN SYSTEM

77 ENGINE INDICATING

7700 ENGINE INDICATING SYSTEM
7710 POWER INDICATING SYSTEM
7711 ENGINE PRESSURE RATIO (EPR)
7712 ENGINE BMEP/TORQUE INDICATING
7713 MANIFOLD PRESSURE (MP) INDICATING
7714 ENGINE RPM INDICATING SYSTEM
7720 ENGINE TEMP. INDICATING SYSTEM
7721 CYLINDER HEAD TEMP (CHT) INDICATING
7722 ENG. EGT/TIT INDICATING SYSTEM
7730 ENGINE IGNITION ANALYZER SYSTEM
7731 ENGINE IGNITION ANALYZER
7732 ENGINE VIBRATION ANALYZER
7740 ENGINE INTEGRATED INSTRUMENT SYSTEM

78 ENGINE EXHAUST

7800 ENGINE EXHAUST SYSTEM
7810 ENGINE COLLECTOR/TAILPIPE/NOZZLE
7820 ENGINE NOISE SUPPRESSOR
7830 THRUST REVERSER

79 ENGINE OIL

7900 ENGINE OIL SYSTEM (AIRFRAME)
7910 ENGINE OIL STORAGE (AIRFRAME)
7920 ENGINE OIL DISTRIBUTION (AIRFRAME)
7921 ENGINE OIL COOLER
7922 ENGINE OIL TEMP. REGULATOR
7923 OIL SHUTOFF VALVE
7930 ENGINE OIL INDICATING SYSTEM
7931 ENGINE OIL PRESSURE
7932 ENGINE OIL QUANTITY
7933 ENGINE OIL TEMPERATURE

80 STARTING

8000 ENGINE STARTING SYSTEM
8010 ENGINE CRANKING
8011 ENGINE STARTER
8012 ENGINE START VALVES/CONTROLS

81 TURBOCHARGING

8100 EXHAUST TURBINE SYSTEM (RECIP)
8110 POWER RECOVERY TURBINE (RECIP)
8120 EXHAUST TURBOCHARGER

82 WATER INJECTION

8200 WATER INJECTION SYSTEM

83 ACCESSORY GEARBOXES

8300 ACCESSORY GEARBOXES

85 RECIPROCATING ENGINE

8500 ENGINE (RECIPROCATING)
8510 RECIPROCATING ENGINE FRONT SECTION
8520 RECIPROCATING ENGINE POWER SECTION
8530 RECIPROCATING ENGINE CYLINDER SECTION
8540 RECIPROCATING ENGINE REAR SECTION
8550 RECIPROCATING ENGINE OIL SYSTEM

MECHANICS CREED

UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified mechanic. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-certificated superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a certified airman, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation.